

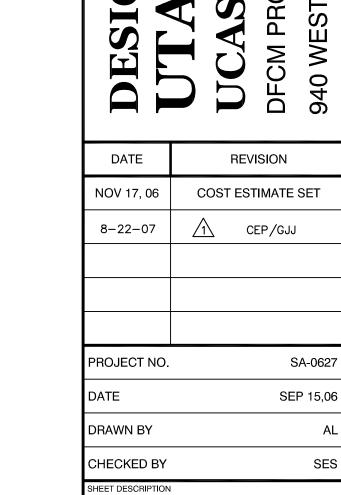
		CMU	WALL	SCHE	DULE					
MARY	THICKNESS HEIGHT VERTICAL REINFORCING HORIZONTAL REINFORCING									
MARK	I HICKNESS	HEIGHT	REBAR SIZE	SPACING	REBAR SIZE	SPACING				
MWI	8"		*4	32" <i>O.C.</i>	#4	32" O.C.				
MW2	10"		*5	24" <i>O.C.</i>	* 5	24" O.C.				
MW3	10"		#5	16" O.C.	#5	16" O.C.				

NOTE: PROVIDE 48 BAR DIAMETER LAP LENGTH, MINIMUM, AT ALL REINFORCING SPLICES.

			MASO	NRY CO	LUMN SCHEDU	LE
	MARK	WIDTH	DEPTH	VERT. BARS	TIES	REMARKS
	MC-1	10"	16"	(4) #5	#2 @ 8" O.C.	(a)
	MC-2	10"	24"	(6) #5	(2) #2 @ 8" O.C.	
1	MC-3		32 "	(8) #5	(2) #2 @ 8" O.C.	
(MC-4	10"	48"	(10) #5	(3) #2 @ 8" O.C.	
	MC-5	\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\	16"	^(4) #5	#2 8 O.C.	
	мс-6	8"	24"	(6) #5	(2) #2 @ 8" O.C.	

- LINTELS: USE MC-1 AT 10" WALLS
- 2. SPACE TIES AT 16" O.C. IN COLUMN ABOVE MASONRY LINTEL.
- 3. COLUMNS SHALL CONTINUE INTO CONCRETE FOUNDATION BELOW. USE #3 TIES AT SPACING SHOWN IN CONCRETE FOUNDATION. SEE FOUNDATION PLAN AND DETAILS.
- 5. DESIGN ROOF JOISTS FOR 120 PLF DEAD LOAD, 120 PLF LIVE LOAD, AND 198 PLF SNOW LOAD. JOISTS SUBJECT TO DRIFT LOAD AS
- INFORMATION ON SHEET S3.3

- DECK w/ (3) SPAN CONTINUOUS UNLESS NOTED OTHERWISE.

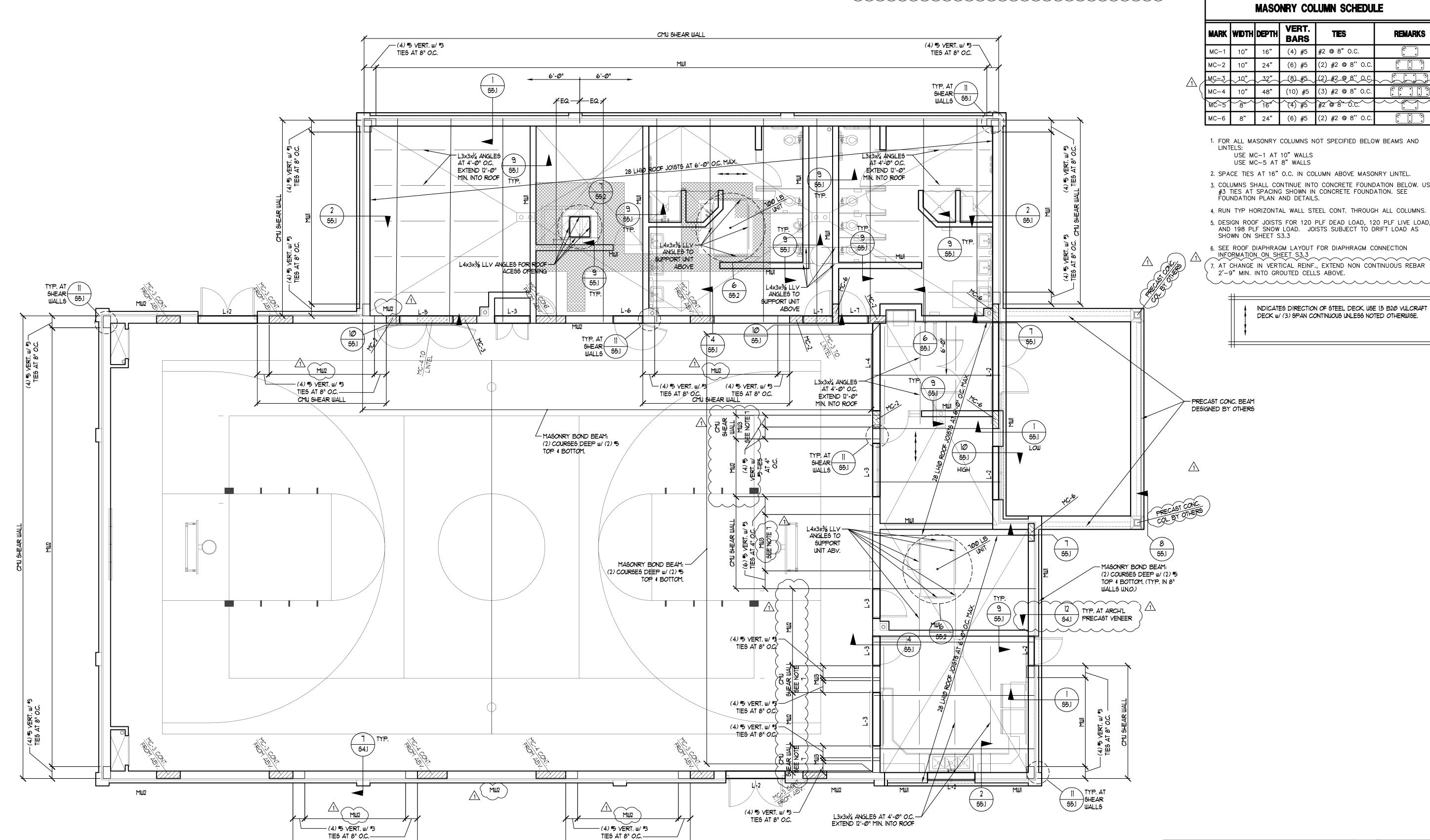


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ARCHITECTURE, P.C.

H

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CMU SHEAR WALL

SCALE:3/16" = 1'-0"

LOW ROOF FRAMING PLAN

CMU SHEAR WALL

L. R. NELSON CONSULTING ENGINEERS, L.L.C.

51 West 9000 South Sandy, Utah (801) 565-8580 (801) 565-9340 FAX

JOB # U850-022-071

STRUCTURAL

ROOF FRAMING PLAN SCALE: 3/16" = 1'-0"

84070

LOW ROOF FRAMING PLAN

MARK	WIDT	DEPTH	TOP	RENF.	вотт.	RENF.	STIRRUPS	REMARKS		
MANN	חושא		NO	SIZE	NO	SIZE	JIMNUFS	- LANAUNO		
<u>_</u>	10"	4 8"	~2~	_#5_	4,	_#5 _~	#3 AI 4" O.C			
2	8"	16"	2	#5	2	# 5	#3 AT 9" O.C.			
<u>)</u>	\\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\	400	\searrow	#	2	(<u>#</u> ()	/#3^A1°91°O.C.			
L-4	10"	56"	2	#6	2	#6	#3 AT 6" O.C.			
L-5	10"	56"	2	#6	2	#6	#3 AT 4" O.C.			
L-6	10"	32"	2	#4	2	#4	#3 AT 9" O.C.			
L-7	10"	48"	2	#5	4	# 5	#3 AT 9" O.C.	BOTT. REINF. IN		

√ 55.1 /

65.1 AT

BRACE

- L3x3x¼ ANGLE BRACES UN.O. AT 4'-4" O.C. EXTEND 24'-0" INTO ROOF

		CMU	WALL	. SCHEI	DULE	
MARK	710//1500		VERTICAL	REINFORCING	HORIZONTAL	. REINFORCING
MARK	THICKNESS	HEIGHT	REBAR SIZE	SPACING	REBAR SIZE	SPACING
MWI	8"		*4	32" <i>O.C.</i>	*4	32" <i>O.C.</i>
MW2	10"		*5	24" O.C.	*5	24" O.C.
MW3	10"		*5	16" O.C.	*5	16" O.C.

NOTE: PROVIDE 48 BAR DIAMETER LAP LENGTH, MINIMUM, AT ALL REINFORCING SPLICES.

MARK	WIDTH	DEPTH	VERT. BARS	TIES	REMARKS
MC-1	10"	16"	(4) #5	#2 @ 8" O.C.	(e) e
MC-2	10"	24"	(6) #5	(2) #2 @ 8" O.C.	
MC=3		32 "	(8) #5	(2) #2 @ 8" O.C.	
MC-4	10"	48"	(10) #5	(3) #2 @ 8" O.C.	
MC-5	\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\	16"	^(4) #5	#2 @ 8° O.C.	
MC-6	8"	24"	(6) #5	(2) #2 @ 8" O.C.	

1. FOR ALL MASONRY COLUMNS NOT SPECIFIED BELOW BEAMS AND LINTELS: USE MC-1 AT 10" WALLS USE MC-5 AT 8" WALLS

FOUNDATION PLAN AND DETAILS.

2'-9" MIN. INTO GROUTED CELLS ABOVE.

- 2. SPACE TIES AT 16" O.C. IN COLUMN ABOVE MASONRY LINTEL. 3. COLUMNS SHALL CONTINUE INTO CONCRETE FOUNDATION BELOW. USE #3 TIES AT SPACING SHOWN IN CONCRETE FOUNDATION. SEE
- 4. RUN TYP HORIZONTAL WALL STEEL CONT. THROUGH ALL COLUMNS. 5. DESIGN ROOF JOISTS FOR 120 PLF DEAD LOAD, 120 PLF LIVE LOAD, AND 198 PLF SNOW LOAD. JOISTS SUBJECT TO DRIFT LOAD AS SHOWN ON SHEET S3.3
- 6. SEE ROOF DIAPHRAGM LAYOUT FOR DIAPHRAGM CONNECTION INFORMATION ON SHEET S3.3 7. AT CHANGE IN VERTICAL REINF., EXTEND NON CONTINUOUS REBAR

INDICATES DIRECTION OF STEEL DECK USE 1.5 B20 YULCRAFT DECK w/ (3) SPAN CONTINUOUS UNLESS NOTED OTHERWISE.

LEGE

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940 WEST DATE REVISION COST ESTIMATE SET NOV 17, 06 ⚠ CEP/GJJ 8-22-07

SOUTH, OREM UTAH

PROJECT NO. SA-0627 SEP 15,06 DRAWN BY SES

CHECKED BY HIGH ROOF FRAMING PLAN

S3.2

L. R. NELSON CONSULTING ENGINEERS, L.L.C. 51 West 9000 South STRUCTURAL Sandy, Utah 84070



6'-0"

CMU SHEAR WALL

-(4) #5 VERT. w/ #3

TIES AT 8" O.C. —

2" WIDE X 11 GAGE X Ø'-10" LONG STEEL STRAP WELDED TO ANGLES W/ FILLET EA SIDE OF STRAP TYP.

TYP. (5)

<u>95.1</u>

MW2

-(4) \$ VERT. w/ \$3

CMU SHEAR WALL

TIES AT 8" O.C.-

34-54-34 LHII ROOF JOISTS

AT 6'-0" O.C. MAX. W/ (3) ROWS OF DIAGONAL BRACING

L-1 (HIGH)

95.1 AT

BRACE

\ 55.1 ∫

L3x3x1/4 ANGLE BRACE6 — U.N.O. AT 4'-4" O.C. EXTEND 24'-0" INTO ROOF

==

MW2

L4x4x½ ANGLE

L-I (HIGH)

54.1

PRECAST VENEER

12 TYP. AT ARCH'L

CMU SHEAR WALL

-(4) \$ VERT. w/ \$

TIES AT 8" O.C. —

34-54-34 LHII ROOF JOISTS
AT 6'-0" O.C. MAX. W/ (3) ROWS OF DIAGONAL BRACING

1000

L-1 (HIGH)

S5.2

L6x6x1/8 ANGLE

L6x6x1/8 ANGLE

L6x6x/8 ANGLE

MW2

-(4) #5 VERT. w/ #3

CMU SHEAR WALL

SCALE: 3/16" = 1'-0"

TIES AT 8" O.C.-

EQ//EQ.

L6x6x1/8 ANGLE

L6x6x1/8 ANGLE

L6x6x1/8 ANGLE

L-1 (HIGH) MW2

Ca

L-1 (HIGH)

MW2

(4) SIDES)

MASONRY BOND BEAM:
(2) COURSES DEEP w/ (2) % AT
BOTTOM AND (2) % AT TOP. (TYP.

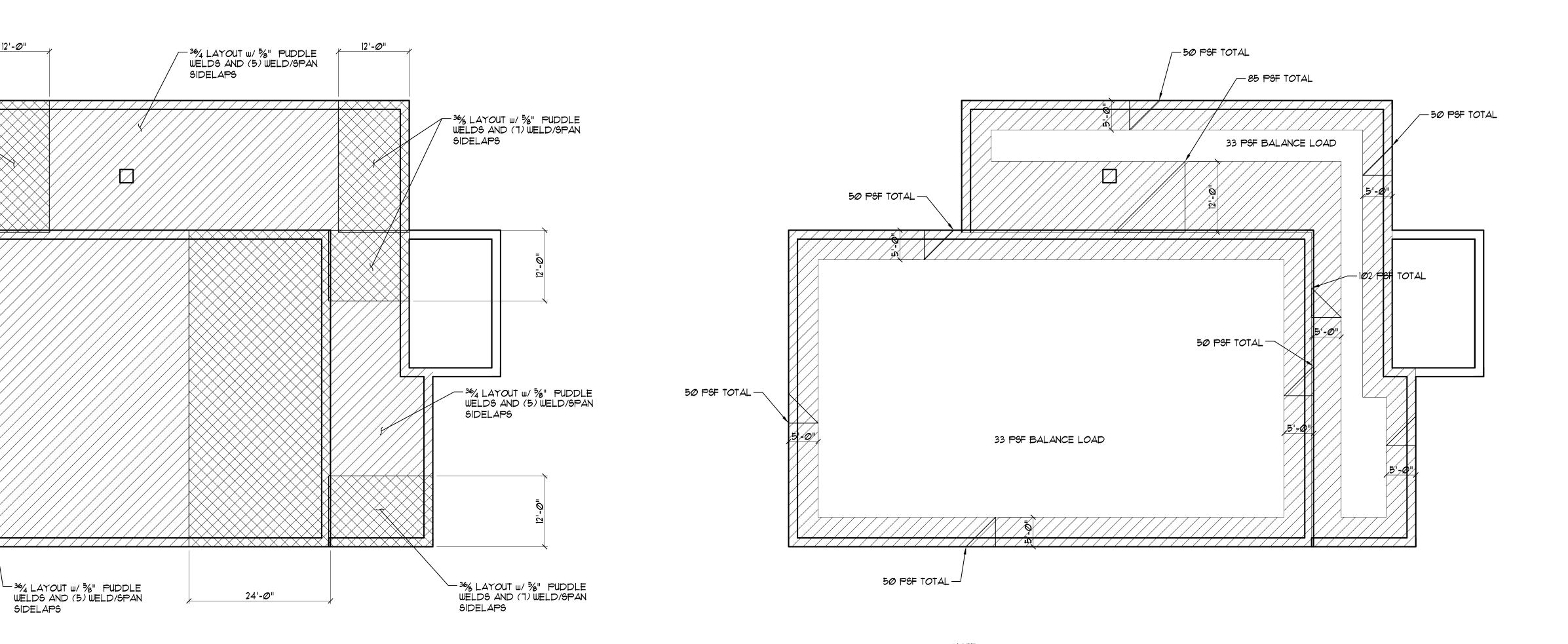
L4x4x½ ANGLE

ROOF FRAMING PLAN SCALE: 3/16" = 1'-0" 2

(801) 565-8580 (801) 565-9340 FAX JOB # U850-022-071

PRINTED: 27 Sep 2007 - 10:46am





3% LAYOUT w/ ½" PUDDLE — WELDS AND (1) WELD/SPAN SIDELAPS

24'-Ø"

ROOF DIAPHRAGM LAYOUT

SCALE: 3/32"=1'-0"

3% LAYOUT w/ %" PUDDLE — WELDS AND (7) WELD/SPAN SIDELAPS

> NOTE: ALL JOISTS TO BE DESIGNED W/ MAX. LIVE LOAD DEFLECTION = L/360 AND MAX. TOTAL LOAD DEFLECTION = L/240

SNOW DRIFT LOAD DIAGRAM

SCALE: 3/32"=1'-0"

L. R. NELSON CONSULTING ENGINEERS, L.L.C.

STRUCTURAL
51 West 9000 South
Sandy, Utah
84070

(801) 565-8580
(801) 565-9340 FAX

JOB # U850-022-071

PROFESSIONAL PROFE

PROJECT NO.

DATE S

DRAWN BY

CHECKED BY

SHEET DESCRIPTION

ROOF SNOW DRIFT &
DIAPHRAGM PLAN

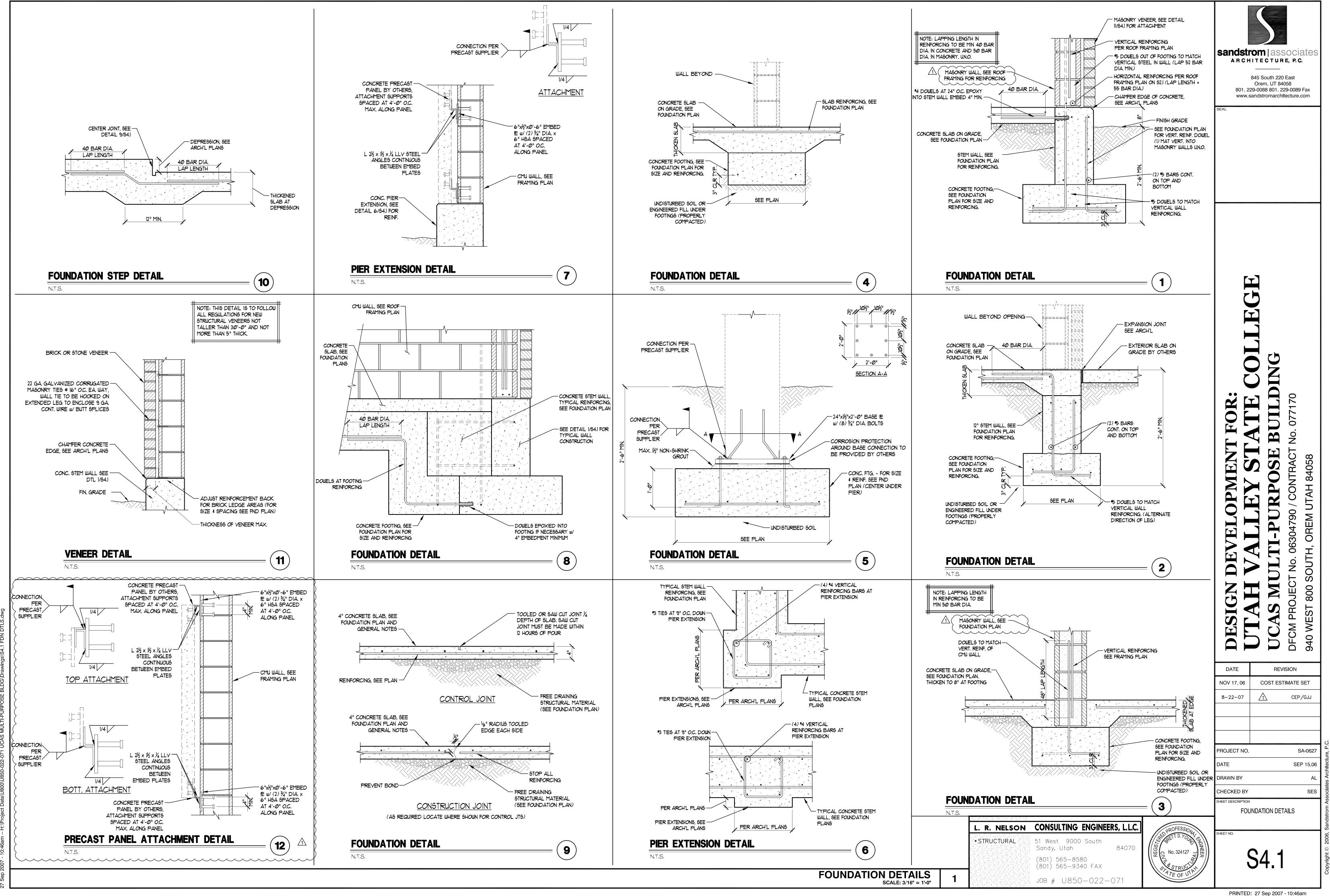
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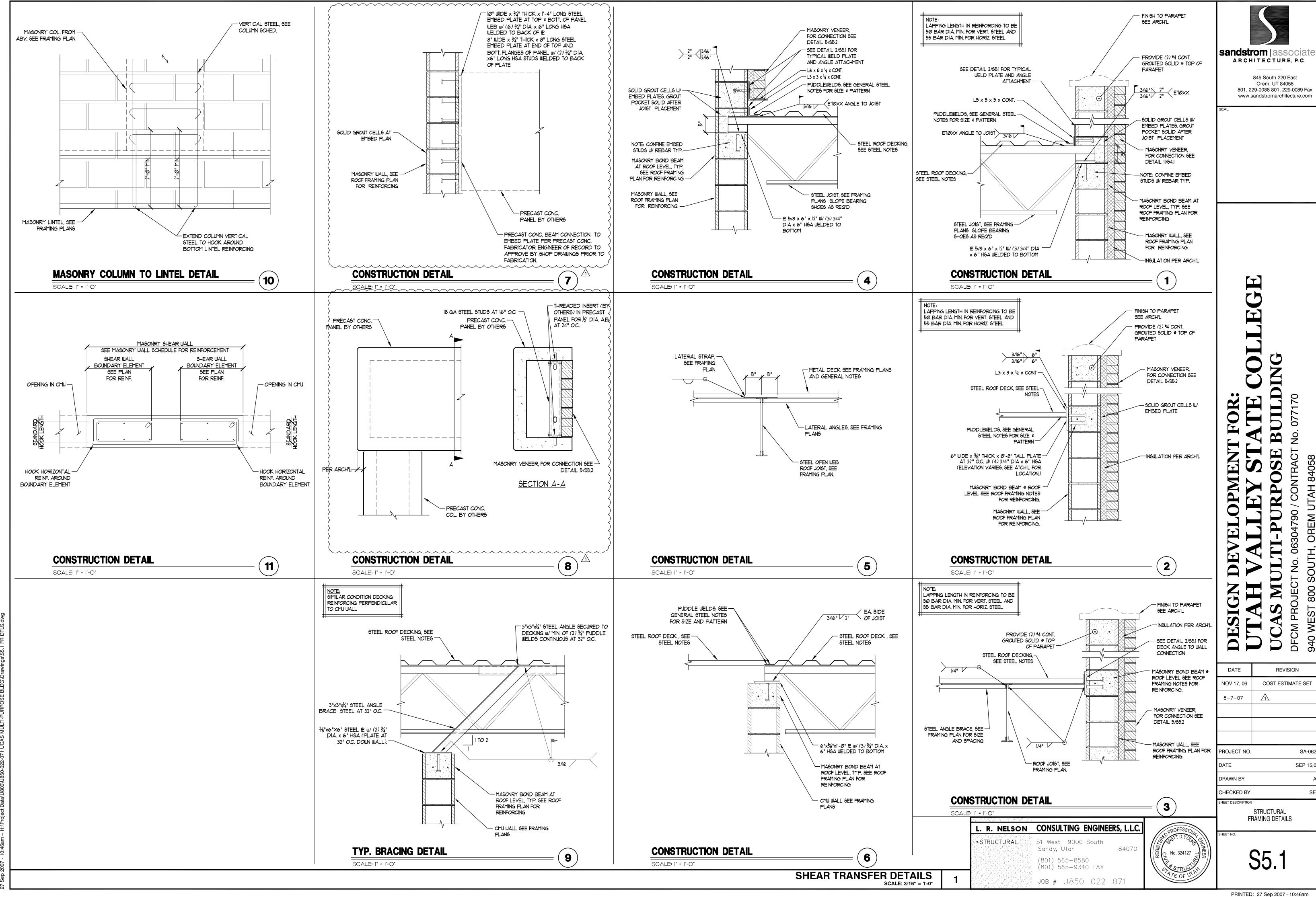
S3.3

ROOF FRAMING PLAN SCALE: 3/16" = 1'-0"

REVISION

COST ESTIMATE SET





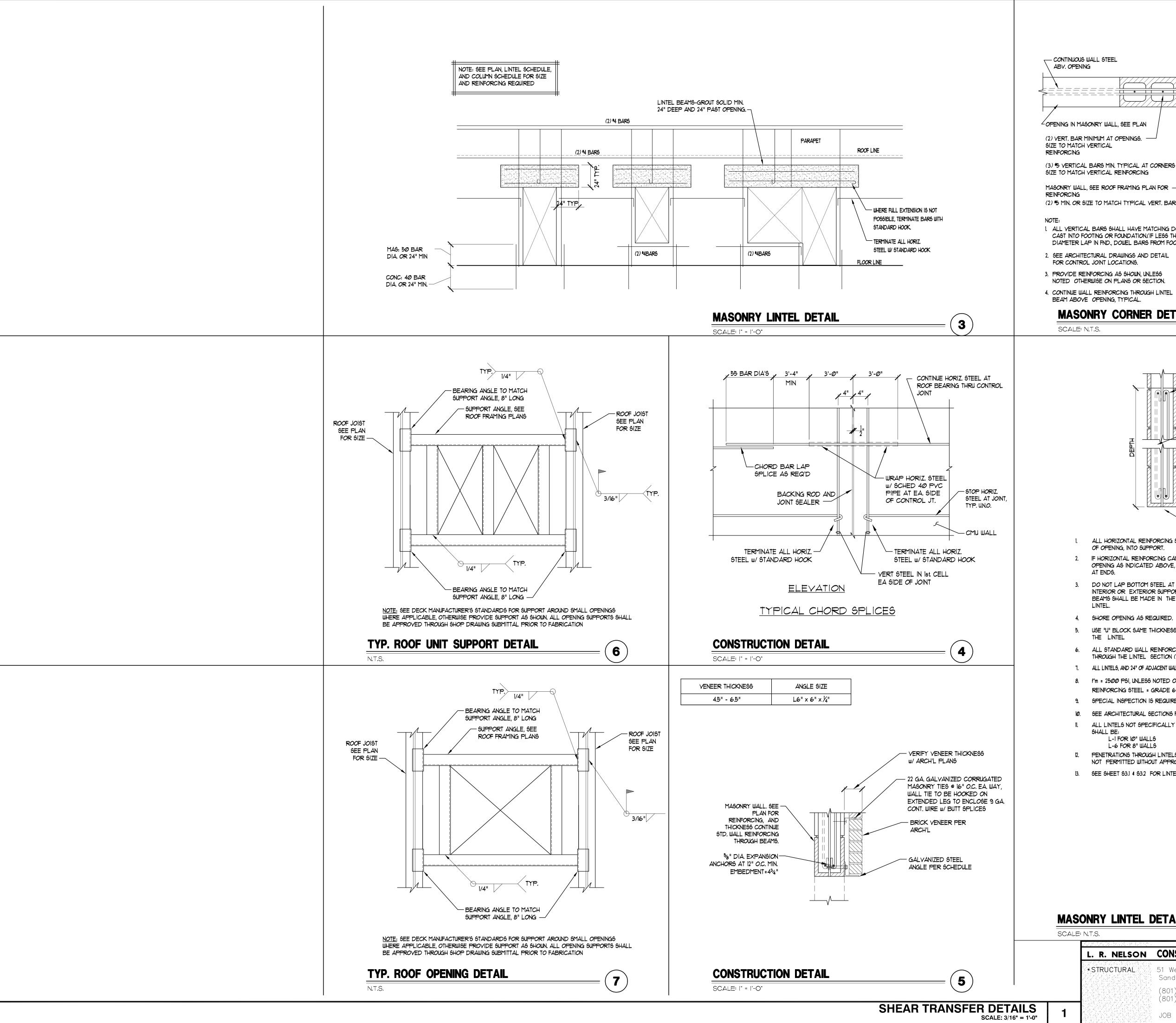
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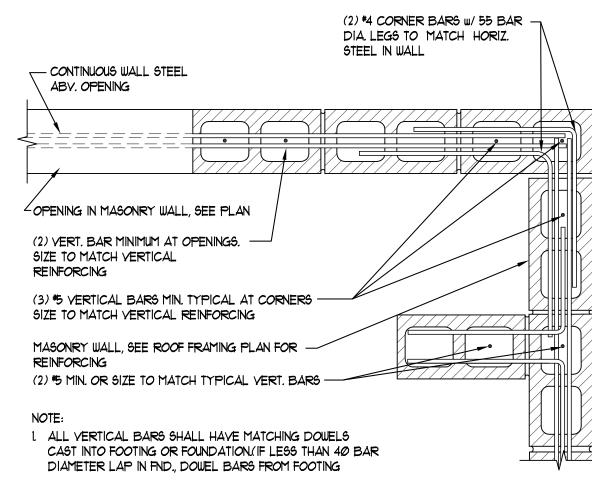
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SA-0627

SEP 15,06





2. SEE ARCHITECTURAL DRAWINGS AND DETAIL

3. PROVIDE REINFORCING AS SHOWN, UNLESS NOTED OTHERWISE ON PLANS OR SECTION.

BEAM ABOVE OPENING, TYPICAL.

MASONRY CORNER DETAIL

MASONRY WALL. SEE PLAN FOR REINFORCING, AND THICKNESS CONTINUE STD. WALL REINFORCING THROUGH BEAMS. HORIZONTAL LINTEL REINFORCING, REFER TO SCHEDULE BELOW FOR SIZE, EXTEND BARS 24" BEYOND OPENING TYP. EACH SIDE. AT CORNERS PROVIDE 90° STANDARD HOOKS: CORNER BARS NOT ALLOWED. - DOUBLE HOOKED STIRRUPS, ALTERNATE SIDES EVERY OTHER BAR SEE SCHEDULE FOR SIZE AND SPACING. "U" BLOCK MASONRY UNIT-IF REQUIRED BY

ARCHITECT

- PROVIDE SHORING

- 1. ALL HORIZONTAL REINFORCING SHALL EXTEND 24" MIN. BEYOND EDGE
- IF HORIZONTAL REINFORCING CANNOT EXTEND 24" BEYOND EDGE OF OPENING AS INDICATED ABOVE, PROVIDE STANDARD 90 DEG. HOOK
- DO NOT LAP BOTTOM STEEL AT CENTER SPAN, NOR TOP STEEL NEAR INTERIOR OR EXTERIOR SUPPORTS. ALL LAPS OF TYP. WALL BOND BEAMS SHALL BE MADE IN THE SECTION OF THE WALL, AND NOT IN THE
- 4. SHORE OPENING AS REQUIRED.
- USE "U" BLOCK SAME THICKNESS AS THE WALL, AS THE BOTTOM BLOCK OF
- 6. ALL STANDARD WALL REINFORCING STEEL SHALL CONTINUE
- THROUGH THE LINTEL SECTION (HORIZONTAL AND VERTICAL). 7. ALL LINTELS, AND 24" OF ADJACENT WALLS, SHALL BE GROUTED SOLID.
- 8. f'm = 2500 PSI, UNLESS NOTED OTHERWISE.
- REINFORCING STEEL = GRADE 60.
- 9. SPECIAL INSPECTION IS REQUIRED.
- 10. SEE ARCHITECTURAL SECTIONS FOR COMBINED BLOCK SIZES IN LINTEL BEAMS.
- ALL LINTELS NOT SPECIFICALLY CALLED OUT ON FRAMING PLAN L-1 FOR 10" WALLS
- PENETRATIONS THROUGH LINTELS FOR MECHANICAL, ELECTRICAL SYSTEMS, ETC. IS NOT PERMITTED WITHOUT APPROVAL OF THE ENGINEER.
- 13. SEE SHEET 63.1 & 63.2 FOR LINTEL SCHEDULE

MASONRY LINTEL DETAIL

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JOB # U850-022-071

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06304790

DATE

NOV 17, 06

PROJECT NO.

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SHEET DESCRIPTION

LEGE

STRUCTURAL

FRAMING DETAILS

PRINTED: 27 Sep 2007 - 10:46am

REVISION

COST ESTIMATE SET

SA-0627

SES

SEP 15,06

	PLUMBING	LEGEND	
MEANING	SYMBOL OR ABBREVIATION	MEANING	SYMBOL OR ABBREVIATION
HOT WATER LINE		WALL CLEANOUT	WCO
COLD WATER LINE		CLEANOUT	СО
VENT LINE		CLEANOUT TO GRADE	COTG
WASTE LINE		FLOOR CLEANOUT	FCO
GAS LINE	—— G	BALL VALVE	Ф
VENT THRU ROOF	VTR	UNION	
CONNECTION TO EXISTING PIPING	•	UNDER FLOOR	UF

PLUMBING GENERAL NOTES:

- G-1 ALL PLUMBING SHALL BE INSTALLED AND CONFORM TO THE 2006 EDITION OF THE INTERNATIONAL PLUMBING CODE (IPC) WITH UTAH ANNOTATIONS AND LOCAL AUTHORITY REQUIREMENTS.
- G-2

 ALL PIPING MATERIALS SHALL MEET ALL REQUIREMENTS OF IPC AND LOCAL AUTHORITY. PLASTIC PIPING SHALL BE ALLOWED ONLY WHERE ALLOWED BY CODE. PLASTIC PIPING SHALL NOT BE ROUTED THROUGH RETURN AIR PLENUMS OR OTHER AREAS PROHIBITED BY THE IMC, IPC OR NFPA CODES OR BY LOCAL AUTHORITY
- G-3 GAS PIPING INSTALLATION SHALL BE IN STRICT ACCORDANCE WITH GAS COMPANY REGULATIONS, NFPA CODE REQUIREMENTS, AND LOCAL AUTHORITY.
- G-4 ALL MATERIALS SHALL BE NEW AND SHALL BE DOMESTIC MADE UNLESS SPECIFICALLY APPROVED OTHERWISE IN WRITING BY ARCHITECT OR OWNER.
- G-5
 PROVIDE VACUUM BREAKERS AND BACK FLOW PREVENTERS WHERE
 REQUIRED BY CODE OR WHERE THERE MAY BE ANY POSSIBLE CHANCE
 FOR CROSS CONTAMINATION. PREVENTERS SHALL BE INSTALLED IN
 ACCORDANCE WITH UTAH CODE.
- G-6
 ALL PLUMBING INFORMATION IS NOT LIMITED TO THE PLUMBING DRAWINGS. CONTRACTOR SHALL BE RESPONSIBLE FOR INFORMATION ON ALL OTHER CONSTRUCTION DOCUMENTS INCLUDING ARCHITECTURAL DRAWING, STRUCTURAL DRAWINGS, MECHANICAL DRAWINGS, AND ELECTRICAL DRAWINGS.
- G-7 THE WORKING DRAWINGS ARE DIAGRAMMATIC. BECAUSE OF THE SMALL SCALE OF THE DRAWING, THEY DO NOT SHOW EVERY OFFSET, BEND OR ELBOW NECESSARY FOR THE COMPLETE INSTALLATION IN THE SPACE PROVIDED. ALL PIPING SHALL BE CHECKED AND COORDINATED WITH THE ARCHITECTURAL, STRUCTURAL, MECHANICAL, AND ELECTRICAL DRAWINGS.
- G-8 COORDINATE ALL PIPING AND PLUMBING EQUIPMENT WITH ALL OTHER TRADES AND/OR CONTRACTORS PRIOR TO INSTALLATION.
- G-9
 ANY AND ALL ALTERATIONS TO THE SYSTEM SHOWN SHALL BE THE RESPONSIBILITY OF THIS CONTRACTOR AND ARCHITECT/ENGINEER SHALL BE NOTIFIED IN WRITING PRIOR TO CHANGES.
- G-10

 GAS LINE FITTINGS SHALL BE STANDARD WELD FITTINGS WITH TAPERED REDUCERS. DO NOT USE VALVES, UNIONS, OR AUTO CONTROLS IN GAS LINES ROUTED IN INACCESSIBLE CONCEALED SPACES.
- G-11
 ALL WATER SYSTEMS SHALL MEET THE REQUIREMENTS OF ANSI/NSF STANDARD 61 SECTION 9 (1998), CONCERNING METAL CONTAMINANTS IN THE WATER SYSTEM.
- G-12 WATER PIPING SHALL NOT BE ROUTED IN OUTSIDE WALLS OR ON EXTERIOR SIDE OF BUILDING INSULATION ENVELOPE.
- G-13 WATER HAMMER ARRESTORS SHALL BE INSTALLED IN ALL WATER LINES WITH QUICK OPEN OR QUICK CLOSE VALVES.

WATER HAMMER ARRESTOR SCHEDULE:
TYPE A 1-11 FIXTURE UNITS

TYPE A 1-11 FIXTURE UNITS
TYPE B 12-32 FIXTURE UNITS
TYPE C 33-60 FIXTURE UNITS
TYPE D 61-113 FIXTURE UNITS

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UTAH VALLEY STATE COLLEG UCAS MULTI-PURPOSE BUILDING DFCM PROJECT No. 06304790 / CONTRACT No. 077170

PROJECT NO.

DATE

DRAWN BY

WHW ENGINEERING INC.

PROFESSIONAL MECHANICAL ENGINEERING
1354 East 3300 South Suite 200
SALT LAKE CITY, UTAH 84106
(801)466-4021, FAX 466-8536
EMAIL: excellence@whw-engineering.com

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SHEET DESCRIPTION

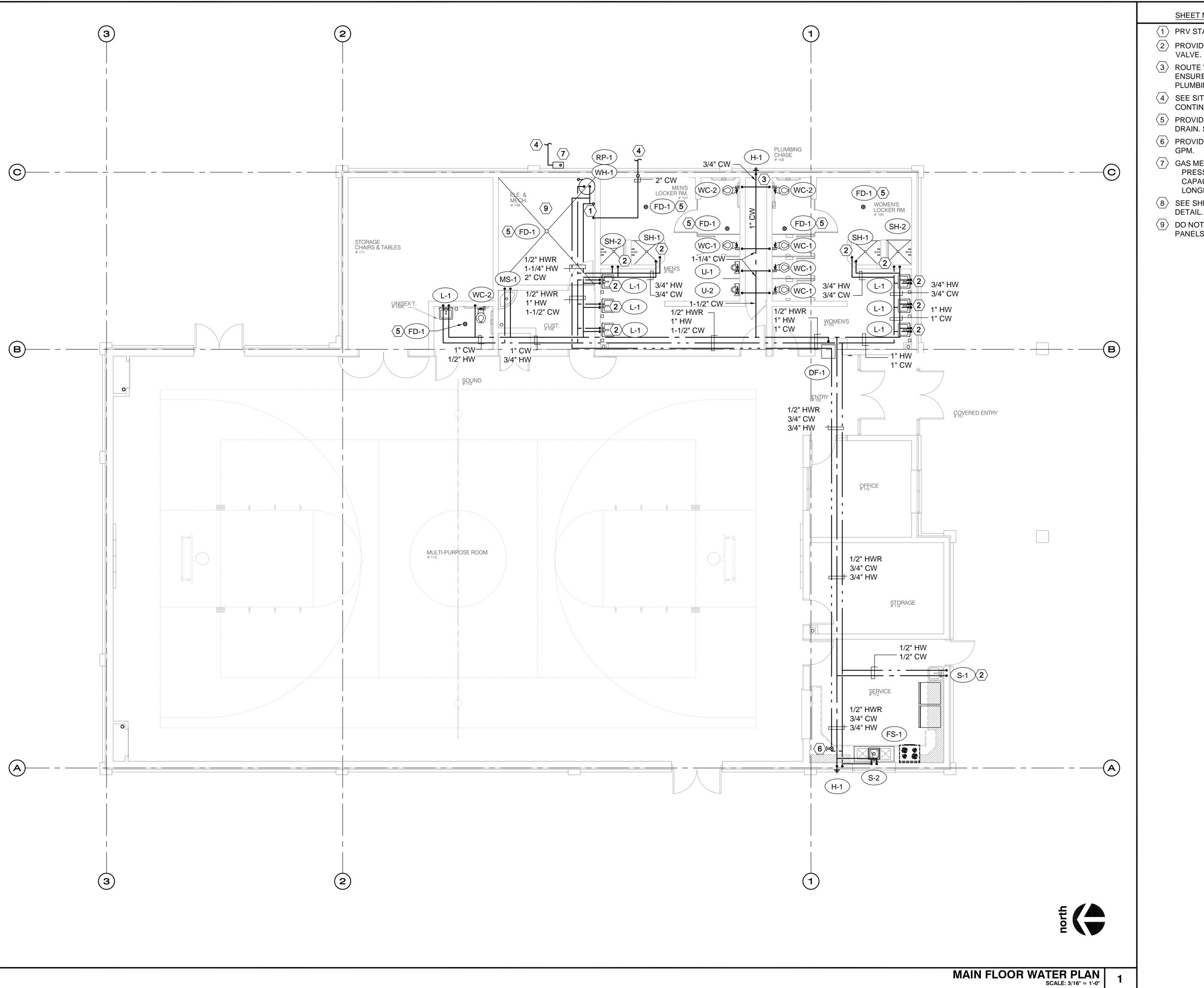
PLUMBING GENERAL NOTES AND LEGEND

SHEET NO.

20.1

AUG 30,07

STAFF



- 1 PRV STATION. SEE DETAIL P5.1
- 2 PROVIDE THERMOSTATIC MIXING
- 3 ROUTE WATER PIPING HIGH TO ENSURE CLEARANCE FOR WALKING IN PLUMBING CHASE.
- 4 SEE SITE UTILITY PLAN FOR CONTINUATION.
- (5) PROVIDE TRAP PRIMER FOR FLOOR DRAIN. SEE SHEET P5.1 FOR DETAIL.
- 6 PROVIDE BALANCING VALVE, SET AT .5
- $\langle 7 \rangle$ GAS METER PRESSURE: 4 OZ. CAPACITY: 883 CFH LONGEST LENGTH: 110'
- 8 SEE SHEET P5.1 FOR WATER HEATER DETAIL.
- 9 DO NOT CROSS OVER ELECTRICAL PANELS WITH ANY PIPING.



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AUG 30,07

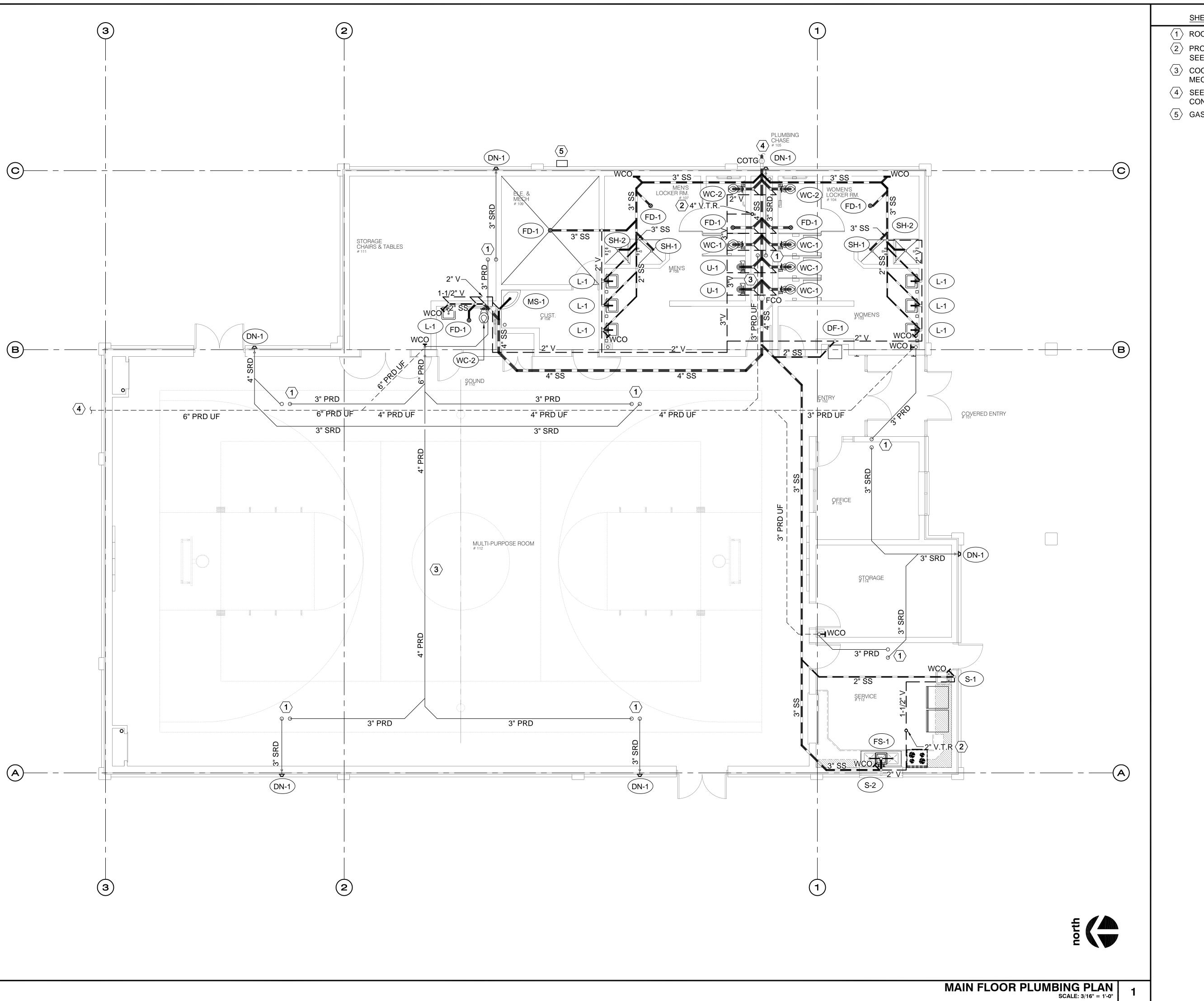
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MAIN FLOOR WATER PLUMBING PLAN WHW
ENGINEERING INC.
PROFESSIONAL MECHANICAL ENGINEERING

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P1.1



- $\langle 1 \rangle$ ROOF DRAIN DROPS FROM ABOVE.
- 2 PROVIDE PLUMBING VENT TO ROOF.
- SEE P1.3.
- (3) COORDINATE EXACT ROUTES WITH MECHANICAL DUCT WORK.
- 4 SEE SITE UTILITY PLAN FOR
- CONTINUATION.
- (5) GAS METER. SEE P1.1.



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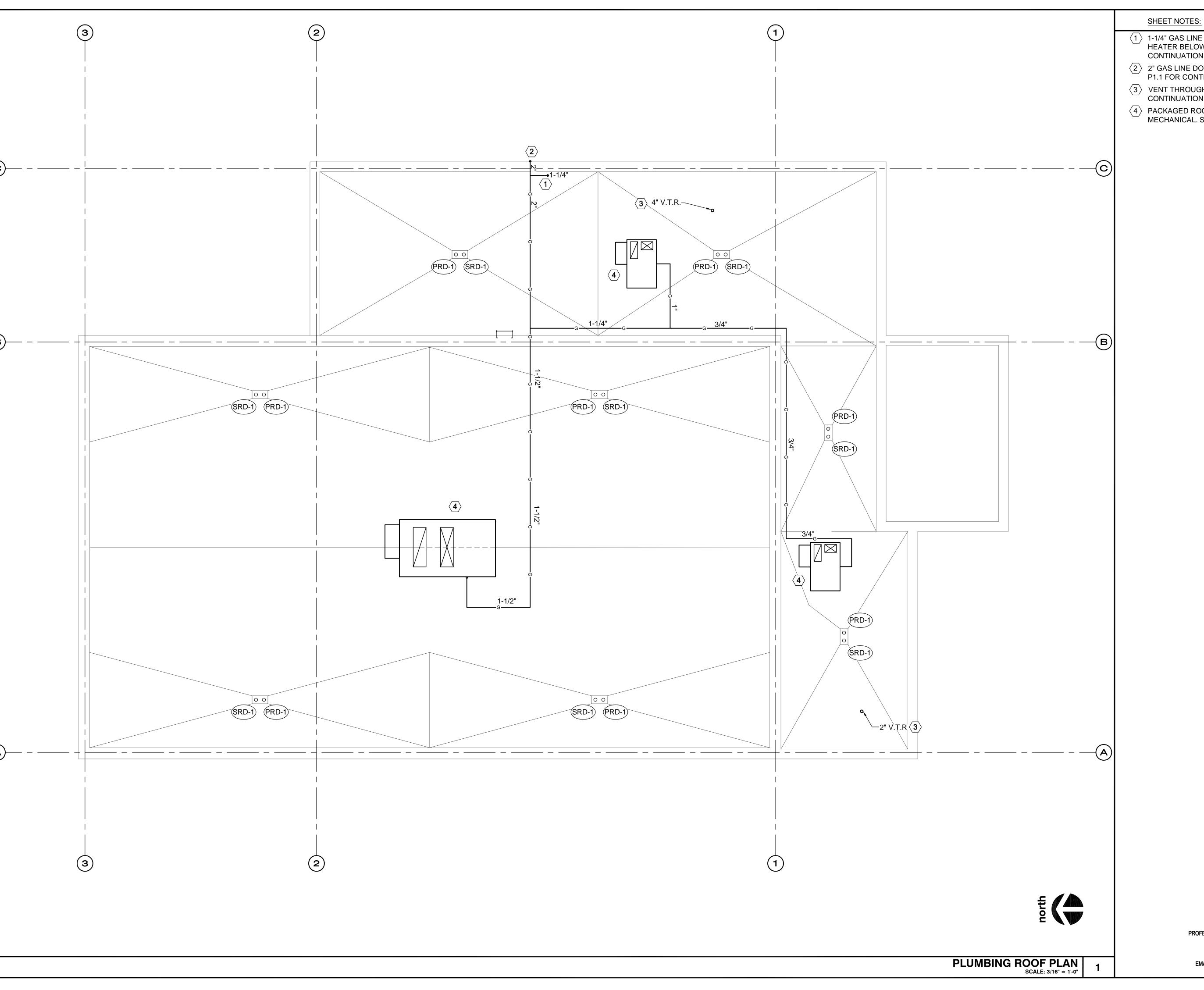
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CHECKED BY MAIN FLOOR WASTE PLUMBING PLAN

WHW
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PROFESSIONAL MECHANICAL ENGINEERING

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P1.2



- $\langle 1 \rangle$ 1-1/4" GAS LINE DOWN TO WATER HEATER BELOW. SEE SHEET P1.1 FOR CONTINUATION.
- $\langle 2 \rangle$ 2" GAS LINE DOWN TO GAS METER. SEE P1.1 FOR CONTINUATION.
- $\overline{3}$ VENT THROUGH ROOF. SEE P1.2 FOR
- CONTINUATION ABOVE.
- (4) PACKAGED ROOFTOP UNIT BY MECHANICAL. SEE M-SHEETS.

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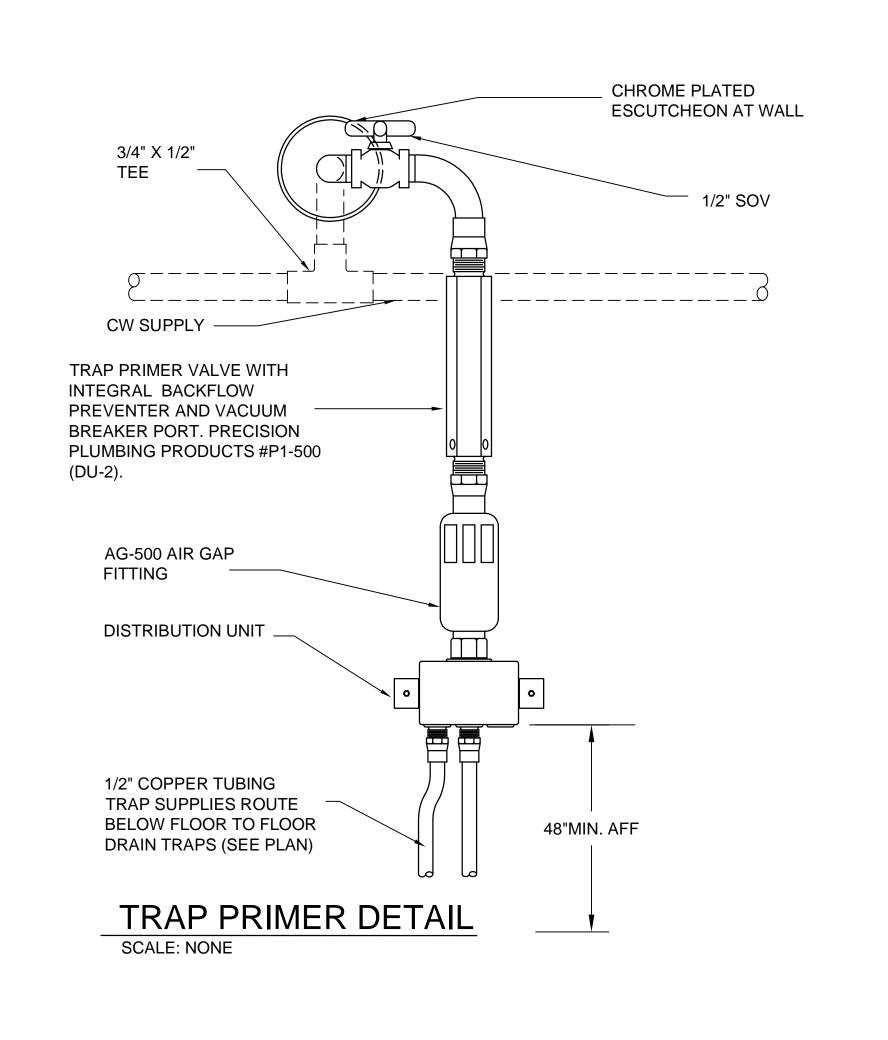
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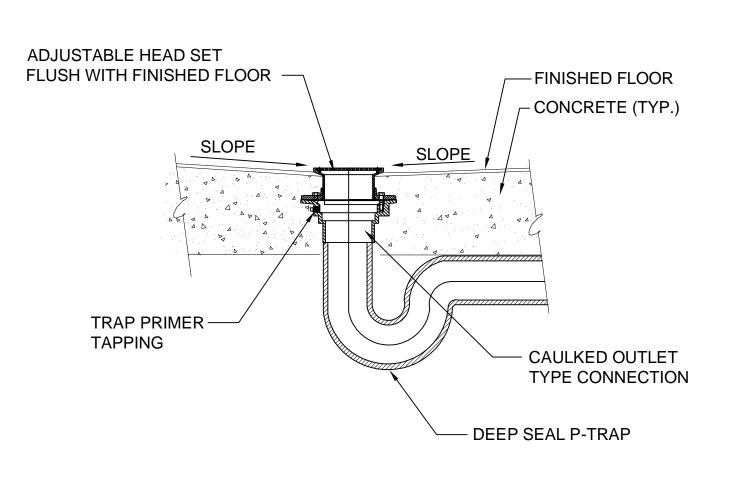
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PLUMBING ROOF PLAN

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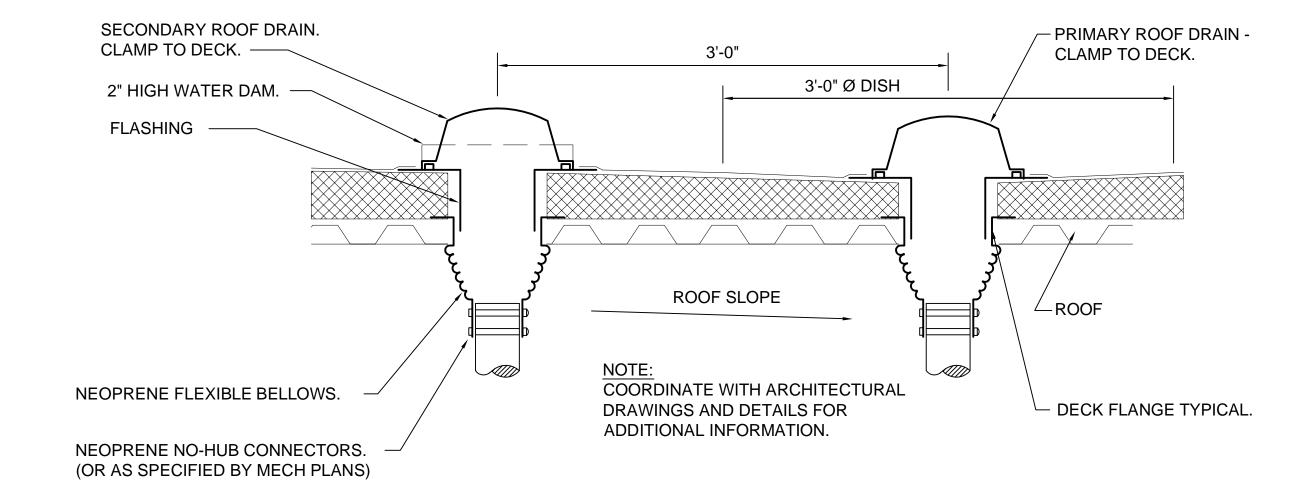
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SCALE: NONE

FLOOR DRAIN DETAIL



ROOF DRAIN DETAIL

-SUPPLY TO BUILDING

-COMBINATION PRESSURE REDUCING

VALVE AND STRAINER SET DISCHARGE

-WATER SUPPLY FROM STREET

PRESSURE GAGE 0 - 100 PSI RANGE

@ 60 PSIG

RUN DRAIN TO

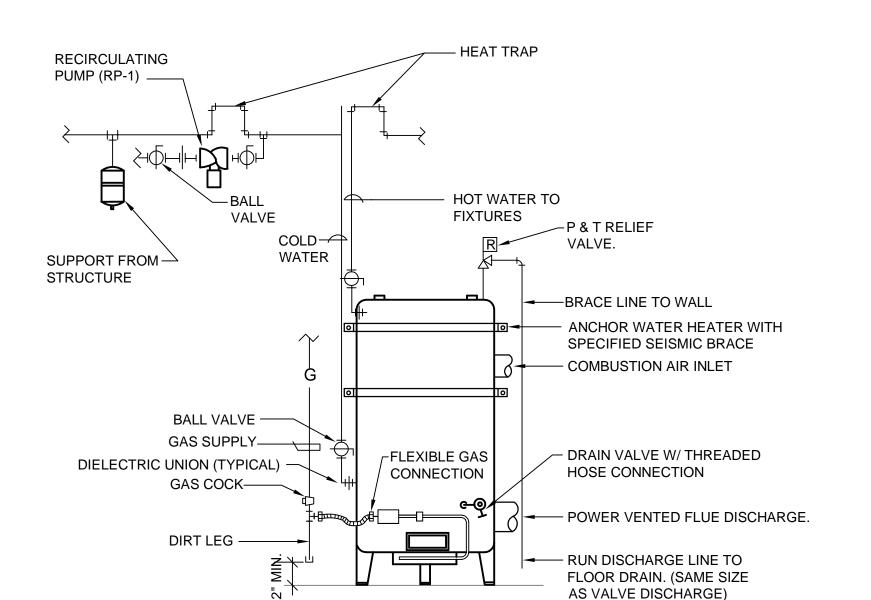
FLOOR DRAIN

—UNION (TYPICAL)

JANITOR'S ROOM FLOOR

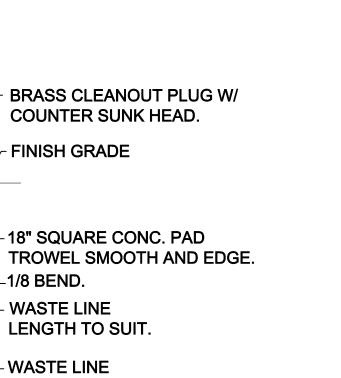
BALL VALVE

SCALE: NONE





POWER VENTED WATER HEATER DETAIL SCALE: NONE



- FINISH GRADE

-1/8 BEND.

- WASTE LINE

- WASTE LINE

-1/8 BEND IF CLEANOUT

OCCURS AT END OF LINE.

CLEAN-OUT DETAILS

- FLOOR LINE

BALANCE OF PIPING

SAME AS CLEANOUT

CLEANOUT TO GRADE (COTG)

TO GRADE.

CLEANOUT AND ACCESS

COVER. TOP OF COVER

TO BE FLUSH W/ TOP OF

FLOOR CLEANOUT (FCO)

SCALE: NONE

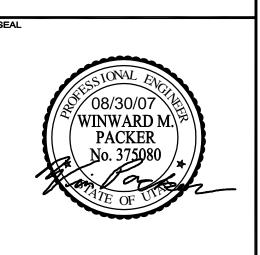
FLOOR.

1/8 BEND



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REVISION PROJECT NO. AUG 30,07 STAFF DRAWN BY CHECKED BY

P5.1

PLUMBING DETAILS

SVMBOI	FIXTURE		INDIV	IDUAL LINE	SIZES		REMARKS
(U-1) (FD-1)	TIXTORE	TRAP	WASTE	VENT	COLD WATER	HOT WATER	KLIVIAKKO
WC-1)	WATER CLOSET	4"	4"	2"	1"	-	WALL MOUNTED, FLUSH VALVE
WC-2	ADA WATER CLOSET	4"	4"	2"	1"	-	WALL MOUNTED, FLUSH VALVE, ADA COMPLIANT
U-1	URINAL	3"	3"	2"	3/4"	-	WALL MOUNTED, FLUSH VALVE
(L-1)	LAVATORY	1-1/2"	1-1/2"	1-1/2"	1/2"	1/2"	SELF SUPPORTING PROVIDE WIT THERMOSTATIC AND PRESSURE MIXING VALVE.
FD-1	FLOOR DRAIN	3"	3"	2"	-	-	WITH DEEP SEAL P-TRAP
DF-1	DRINKING FOUNTAIN	1-1/2"	1-1/2"	1-1/2"	1/2"	-	ELECTRIC BI-LEVEL
(WH-1)	WATER HEATER	-	-	-	3/4"	3/4"	GAS FIRED, HIGH EFFICIENCY POWER VENT, 199,000 BTUH INPUT, 100 GALLON STORAGE CAPACITY, A.O. SMITH BTH-199 C EQUAL.
(PRD-1)	PRIMARY ROOF DRAIN	-	3"	-	-	-	
(SRD-1)	SECONDARY ROOF DRAIN	-	3"	-	-	-	
FS-1	FLOOR SINK	3"	3"	2"	-	-	WITH DEEP SEAL P-TRAP, CECC 906-2 OR EQUAL
SH-1	SHOWER FAUCET	1-1/2"	2"	1-1/2"	1/2"	1/2"	COORDINATE SHOWER FAUCET TYPE WITH OWNER. PROVIDE FLOOR DRAIN AT BASE.
SH-2	ADA SHOWER HEAD	1-1/2"	2"	1-1/2"	1/2"	1/2"	COORDINATE SHOWER FAUCET TYPE WITH OWNER. PROVIDE FLOOR DRAIN AT BASE.
(S-1)	HAND SINK	1-1/2"	1-1/2"	1-1/2"	1/2"	1/2"	PROVIDE WITH THERMOSTATIC
S-2	THREE COMPARTMENT SINK	2"	2"	2"	3/4"	3/4"	PROVIDE INDIRECT WASTE PIPIN TO FLOOR SINK
MS-1)	MOP SINK	2"	3"	2"	3/4"	3/4"	FLOOR MOUNTED CORNER SINK
<u>U-2</u>	ADA URINAL	3"	3"	2"	3/4"	-	WALL MOUNTED, FLUSH VALVE ADA COMPLIANT
(H-1)	HYDRANT	-	-	_	3/4"	_	FREEZE PROOF

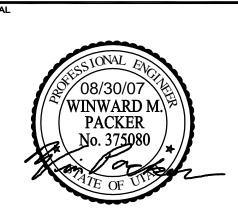
	RECIRCULATION PUMP SCHEDULE											
SYMBOL	TYPE	FLOW GPM	HEAD FT.	SUCTION	DISCHARGE		MOTOR		SCHEDULE NOTES			
						NOTES						
RP-1	RECIRCULATING PUMP	2	10	1/2"	1/2"	115-1Ø-60	1/6	3000	1			
1. B & G MO	DEL NBF-18S CIRCUL	ATING PUMP. SEE SPEC	CIFICATIONS F	OR OTHER A	PPROVED MANU	JFACTURERS	5.	1	1			



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UCAS MULTI-PURPOSE DFCM PROJECT No. 06304790 / CONTRACTION WEST 800 SOUTH, OREM UTAH 84058

PROJECT NO. SA-0627 AUG 30,07 STAFF DRAWN BY CHECKED BY

REVISION

PLUMBING SCHEDULES

P6.1

GENERAL NOTES:

MECHANICAL INFORMATION IS NOT LIMITED TO THE MECHANICAL DRAWINGS. CONTRACTOR SHALL BE RESPONSIBLE FOR INFORMATION ON ALL OTHER CONSTRUCTION DOCUMENTS INCLUDING DRAWINGS BY OTHER DISCIPLINES AND SPECIFICATIONS.

A - EACH DRAWING SHEET AND THE SPECIFICATIONS HAVE BEEN PREPARED TO SUPPLEMENT EACH OTHER AND THEY SHALL BE INTERPRETED AS AN INTEGRAL UNIT WITH ITEMS SHOWN AND NOTED ON ONE AND NOT THE OTHER BEING FURNISHED AND INSTALLED AS THOUGH SHOWN AND CALLED OUT IN ALL PLACES. ITEMS IN SPECIFICATIONS OR DRAWINGS LISTED WHICH ARE DIFFERING IN EFFICIENCY OR QUALITY SHALL BE HELD TO THE GREATEST OF: EFFICIENCY, QUALITY OR GOVERNING CODE.

B - THE CONTRACTOR WILL BE HELD RESPONSIBLE FOR THE INSTALLATION OF THE SYSTEMS ACCORDING TO THE TRUE INTENT AND MEANING OF THE CONTRACT DOCUMENTS.

C - THE CONTRACTOR SHALL INSTALL ALL EQUIPMENT WITH PROPER SERVICE ACCESS AND CLEARANCES ACCORDING TO MANUFACTURERS RECOMMENDATIONS. THE CONTRACTOR SHALL REVIEW SUPPLIERS BID PACKAGES FOR COMPLETENESS AND COMPLIANCE TO THE SPECIFICATIONS, SCHEDULES, AND DESIGN INTENT (ALL EQUIPMENT AND METHODS). THE CONTRACTOR SHALL REMOVE AND REINSTALL CORRECTLY AT HIS OWN EXPENSE ANY EQUIPMENT NOT IN COMPLIANCE.

D - THE CONTRACTOR SHALL CONSULT MANUFACTURERS INSTALLATION INSTRUCTIONS FOR SIZES, METHODS, ACCESSORIES, AND CLEARANCES IN SPACE AVAILABLE PRIOR TO BIDDING PROJECT.

E - ANYTHING NOT CLEAR OR IN CONFLICT WILL BE EXPLAINED BY MAKING APPLICATION TO THE ENGINEER IN WRITING.

- ANY AND ALL ALTERATIONS TO THE SYSTEM SHOWN SHALL BE THE RESPONSIBILITY OF THIS CONTRACTOR. ARCHITECT SHALL BE NOTIFIED IN WRITING PRIOR TO CHANGES.
- CONTRACTOR SHALL FIELD VERIFY ALL DIMENSIONS AND LOCATIONS.
- THE WORKING DRAWINGS ARE DIAGRAMMATIC. THEY DO NOT SHOW EVERY OFFSET, BEND, OR ELBOW NECESSARY FOR THE COMPLETE INSTALLATION IN THE SPACE PROVIDED. ALL LOCATIONS FOR MECHANICAL EQUIPMENT SHALL BE FIELD VERIFIED AND COORDINATED WITH ALL DRAWINGS. THE CONTRACTOR SHALL PROVIDE OR COORDINATE WITH THE GENERAL CONTRACTOR PROVISIONS FOR BLOCKOUTS OR CORE DRILLS THROUGH STRUCTURE.
- THE INSTRUCTION TO "PROVIDE" ALSO INCLUDES INSTALLATION.
- MECHANICAL CONTRACTOR SHALL PROVIDE AND INSTALL SMOKE AND FIRE DAMPERS AS REQUIRED BY LOCAL CODES AND AUTHORITIES.
- SHEET METAL DUCT SIZES SHOWN ON DRAWINGS ARE FREE AREA DIMENSIONS.
- PROVIDE AND INSTALL BALANCING DAMPERS IN ALL SUPPLY AND EXHAUST AIR BRANCH DUCTS. BALANCE TO CFM SHOWN ON PLAN.
- SEE ARCHITECTURAL REFLECTED CEILING PLAN FOR EXACT LOCATION OF DIFFUSERS AND GRILLES.
- PROVIDE TURNING VANES IN ALL ELBOWS OF RECTANGULAR DUCT.
- THE CONTRACTOR SHALL ASSUME ALL RESPONSIBILITY IN HANDLING AND DISPOSING OF REFRIGERANTS, OILS, ETC. ALL SUCH MATERIALS SHALL BE HANDLED, DISPOSED, AND USED IN ACCORDANCE WITH ALL LOCAL, STATE, AND FEDERAL LAWS.
- THE MECHANICAL CONTRACTOR SHALL VERIFY MOTOR VOLTAGES WITH THE ELECTRICAL DRAWING BEFORE ORDERING MOTORIZED **EQUIPMENT AND CONTROLS.**
- C.F.M. LISTED IS ACTUAL AIR.
- SUPPLIERS SHALL REVIEW ALL DRAWINGS AND THE SPECIFICATIONS PRIOR TO SUBMITTING PRICES TO THE CONTRACTOR. ALL QUESTIONS AND DISCREPANCIES SHALL BE BROUGHT TO THE ENGINEERS ATTENTION PRIOR TO BIDDING.
- CONTRACTOR SHALL THOROUGHLY REVIEW AND SIGN SUBMITTALS FOR COMPLETENESS AND COMPLIANCE TO THE SPECIFICATIONS PRIOR TO ENGINEERS REVIEW. SUPPLIERS SHALL HIGHLIGHT OR MARK ALL INFORMATION REQUIRED TO SHOW COMPLIANCE TO THE SPECIFICATIONS. ALL REQUESTED EXCEPTIONS TO THE SPECIFICATIONS, OR SCHEDULES SHALL BE CLEARLY NOTED AND EXPLAINED. SUBMITTAL REVIEW AND ACCEPTANCE IS FOR DESIGN CONCEPT ONLY, AND DOES NOT AT ANY TIME RELIEVE THE CONTRACTOR OF RESPONSIBILITY TO MEET SPECIFICATIONS, CAPACITIES, OR DESIGN INTENT.
- ALL MECHANICAL SHALL BE INSTALLED AND CONFORM TO THE 2006 EDITION OF THE IMC WITH UTAH ANNOTATIONS AND LOCAL AUTHORITY REQUIREMENTS.
- THIS CONTRACTOR SHALL BE RESPONSIBLE FOR THE DRAINING DOWN AND RE-FILLING OF ALL SYSTEMS NECESSARY TO COMPLETE THE WORK OUTLINED BY THIS PROJECT. THIS INCLUDES PROVIDING THE REQUIRED CHEMICAL TREATMENT WHEN RE-FILLING THE SYSTEM.

			MECHANICAI	LEGEND			
YMBOL ABR	. DESCRIPTION	SYMBOL AB	R. DESCRIPTION	SYMBOL AE	R. DESCRIPTION	SYMBOL ABR.	DESCRIPTION
	GENERAL TERMINOLOGY		AIR SIDE		WET SIDE		WET SIDE CONT
A	SECTION LETTER DESIGNATION	₩ 🖶	EXISTING AIR DUCT TO BE REMOVED		UNION		PITCH DOWN
ME-101	— SECTION DRAWN ON THIS SHEET	├ ─ ├ ─ ├	EXISTING AIR DUCT TO REMAIN	Г	MANUAL ACTUATOR (BALL,	O	ELBOW UP
(12)	— DETAIL NUMBER DESIGNATION	├ ├ ├	NEW AIR DUCT		BUTTERFLY, NEEDLE, ETC. VALVES)	G	ELBOW DOWN
(A2)	CORRESPONDING WITH GRID LOCATION	江草	RECT. TO RECT. AIR DUCT TAKE-OFF	_	MANUAL ACTUATOR (GATE, GLOBE,	— <u> </u>	TEE UP
AH	- MECHANICAL EQUIPMENT DESIGNATION	江草	RECT. TO RND. AIR DUCT TAKE-OFF		S&D, OS&Y, ETC. VALVES)		TEE DOWN
1	— EQUIPMENT ITEM DESIGNATION	江 喜	RND. TO RND. AIR DUCT TAKE-OFF	<u>—</u> ф— В	V BALL VALVE	<u> </u>	EXISTING PIPING TO BE REMOVED
D-1	REGISTER, GRILL OR DIFFUSER	\\	RECT. TAKE-OFF AT END OF MAIN		PRESSURE RELIEF VALVE		EXISTING PIPING TO REMAIN
CFM	DESIGNATION WITH BALANCING CFM LISTED BELOW	\leftarrow	BURIED OR UNDER FLOOR DUCT	M M'	/D MOTORIZED VOLUME DAMPER		NEW PIPING
	GRILLE, OR LOUVER DESIGNATION WHERE	Similar	FLEXIBLE AIR DUCT	BD B	D BACKDRAFT DAMPER		PIPE CAP OR PLUG
R-1	BALANCING NOT REQUIRE	₽	LINED DUCT	F F	D FIRE DAMPER		CONCENTRIC REDUCER
A	REVISION DESIGNATOR AND NUMBER		VANED ELBOW	R R	D RADIATION TYPE FIRE DAMPER		ECCENTRIC REDUCER
1	KEY NOTE DESIGNATOR AND NUMBER		RADIUS ELBOW	s s	D SMOKE DAMPER	—CD—	CONDENSATE DRAIN
● POC	POINT OF CONNECTION	₩ □	CONCENTRIC DUCT TRANSITION	FS F-S	MALL MOUNTED FIRESTAT	—-G—	NATURAL GAS PIPING
POR	POINT OF REMOVAL	₩ □ □	ECCENTRIC DUCT TRANSITION	T-S	TAT WALL MOUNTED THERMOSTAT	cw	CULINARY COLD WATER
AFF	ABOVE FINISHED FLOOR		FLEXIBLE AIR DUCT	S	WALL MOUNTED TEMP. SENSOR	— HW	CULINARY HOT WATER
AP	ACCESS PANEL	-VD	VOLUME DAMPER	H H-S	TAT WALL MOUNTED HUMIDISTAT		RECIRCULATED CULINARY HOT WA
ĢEL.	CENTER LINE ELEVATION		SUPPLY AIR DIFFUSER	F F-S	MALL MOUNTED FIRESTAT		•
V. ELEV.	INVERT ELEVATION		RETURN AIR, FRESH AIR, AND TRANSFER AIR	SA	SUPPLY AIR		
GC	GENERAL CONTRACTOR		CEILING MOUNTED EXHAUST FAN OR EXHAUST GRILLE	RA	RETURN AIR		
MC	MECHANICAL CONTRACTOR		RETURN OR OUTSIDE AIR DUCT UP	EA	EXHAUST AIR		
СС	CONTROL CONTRACTOR		SUPPLY DUCT UP	OA	OUTSIDE AIR		
EC	ELECTRICAL CONTRACTOR		EXHAUST AIR INTAKE UP	MA	MIXED AIR		
FPC	FIRE PROTECTION CONTROL		RETURN OR OUTSIDE AIR DUCT DOWN	FA	FRESH AIR		
NIC	NOT IN CONTRACT		SUPPLY DUCT DOWN	RF	RELIEF AIR		
NTS	NOT TO SCALE		EXHAUST DUCT DOWN				
VCP	VITRIFIED CLAY PIPE	⊬● !©	ROUND DUCT UP	1			
С	COMMON	H 10	LOWER DUCT DOWN	1			
NC	NORMALLY CLOSED	{ <u>R</u> /-}	FLEXIBLE DUCT CONNECTION	1			
NO	NORMALLY OPEN		LOWER DUCT DOWN	1			
<u> </u>	1		FLEXIBLE DUCT CONNECTION	1			
		<u> </u>	PARALLEL BLADE DAMPER				
			OPPOSED BLADE DAMPER	1			

HUMIDIFIER

FILTER BANK

AP | ACCESS PANEL

NEW EQUIPMENT

AIRFLOW MEASURING STATION

EXISTING EQUIPMENT TO BE REMOVED

EXISTING EQUIPMENT TO REMAIN



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'WINWARD M.

PACKER

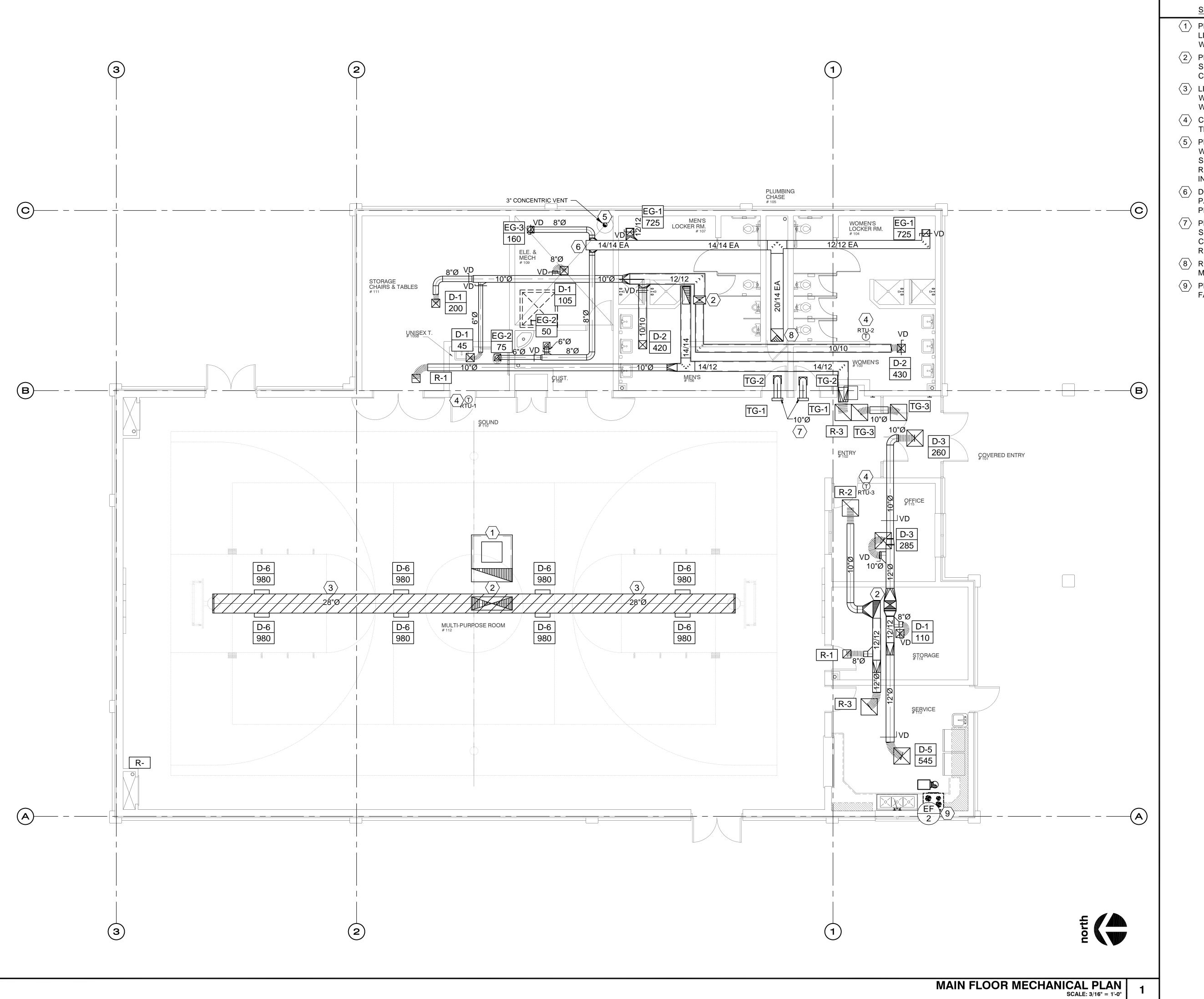
PROJECT NO. DRAWN BY CHECKED BY MECHANICAL **GENERAL NOTES AND LEGEND**

DATE

AUG 30,07

STAFF

REVISION



- 1 PROVIDE 30/30 OPENING IN THE TOP OF LINED RETURN DUCT. PROVIDE WITH WIRE MESH RODENT SCREEN.
- 2 PROVIDE DUCT DROPS FROM RTU FULL SIZE FROM CURB. SEE M1.2 FOR CONTINUATION.
- (3) LINED SPIRAL DUCTWORK. ROUTE IN WEBBING OF TRUSS. COORDINATE WITH STRUCTURAL.
- (4) CONFIRM EXACT LOCATION OF THERMOSTAT WITH OWNER / ARCH.
- 5 PROVIDE CONCENTRIC VENT FLUE FOR WATER HEATER. COORDINATE EXACT SIZE WITH MANUFACTURER RECOMMENDED INSTALLATION INSTRUCTIONS.
- (6) DO NOT CROSS OVER ELECTRICAL PANELS WITH DUCTWORK OR ANY
- 7 PROVIDE DUCTED TRANSFER AIR FROM SIDEWALL TRANSFER GRILLES, TO CEILING TRANSFER GRILLES IN RESTROOMS.
- 8 ROUTE EXHAUST DUCT TO ROOF MOUNTED FAN. SEE M1.2.
- 9 PROVIDE CEILING MOUNTED EXHAUST FAN AND ROOF CAP.



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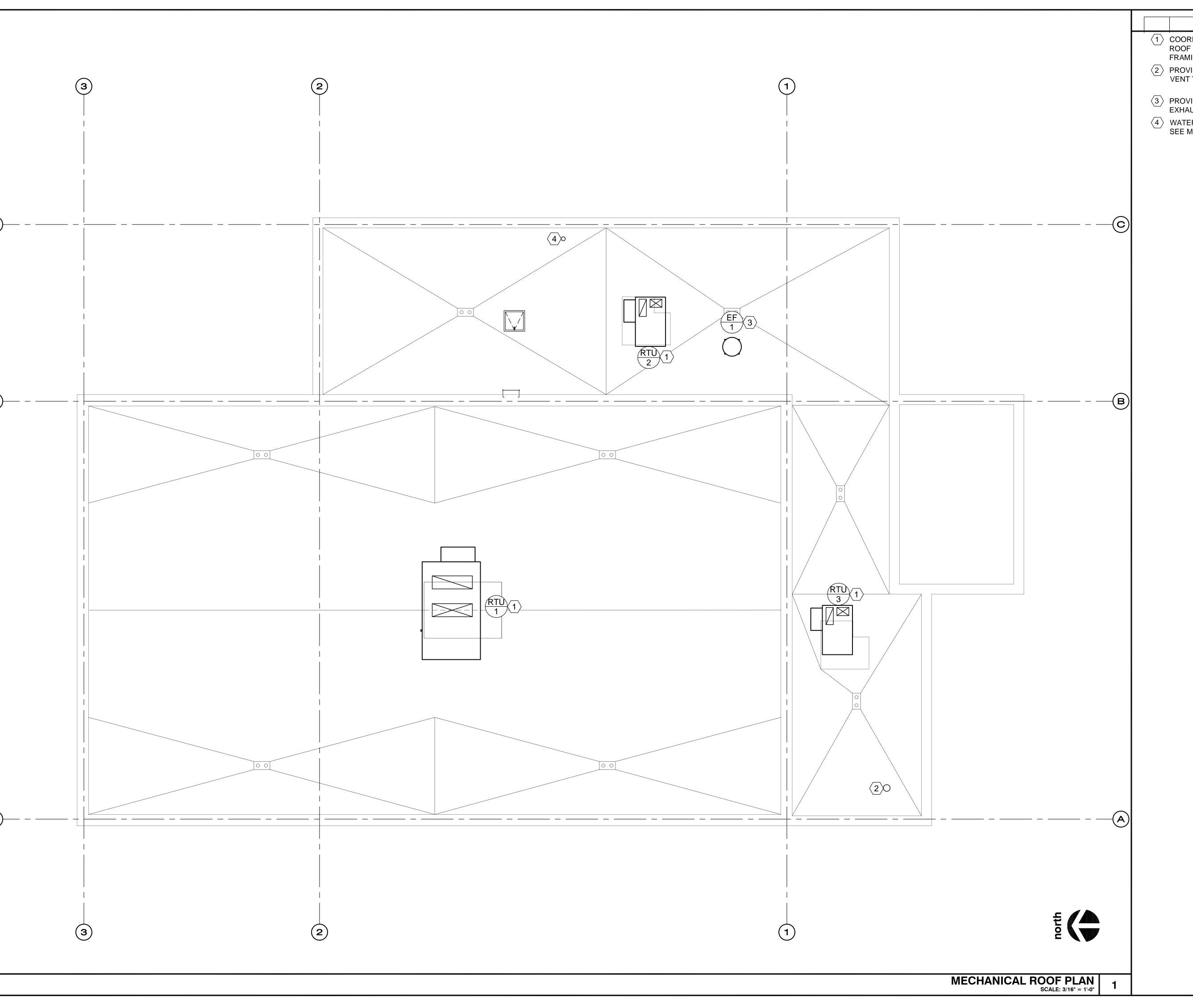
MAIN FLOOR MECHANICAL PLAN

PROJECT NO.

CHECKED BY

M1.1

AUG 30,07



- 1 COORDINATE EXACT POSITION OF ROOF TOP UNIT WITH STRUCTURAL FRAMING.
- $\overline{\langle 2 \rangle}$ PROVIDE ROOF CAP FOR EXHAUST VENT THRU ROOF.
- $\langle 3 \rangle$ PROVIDE ROOF MOUNTED DOME **EXHAUST FAN**
- 4 WATER HEATER CONCENTRIC VENT SEE M1.1 FOR CONTINUATION.



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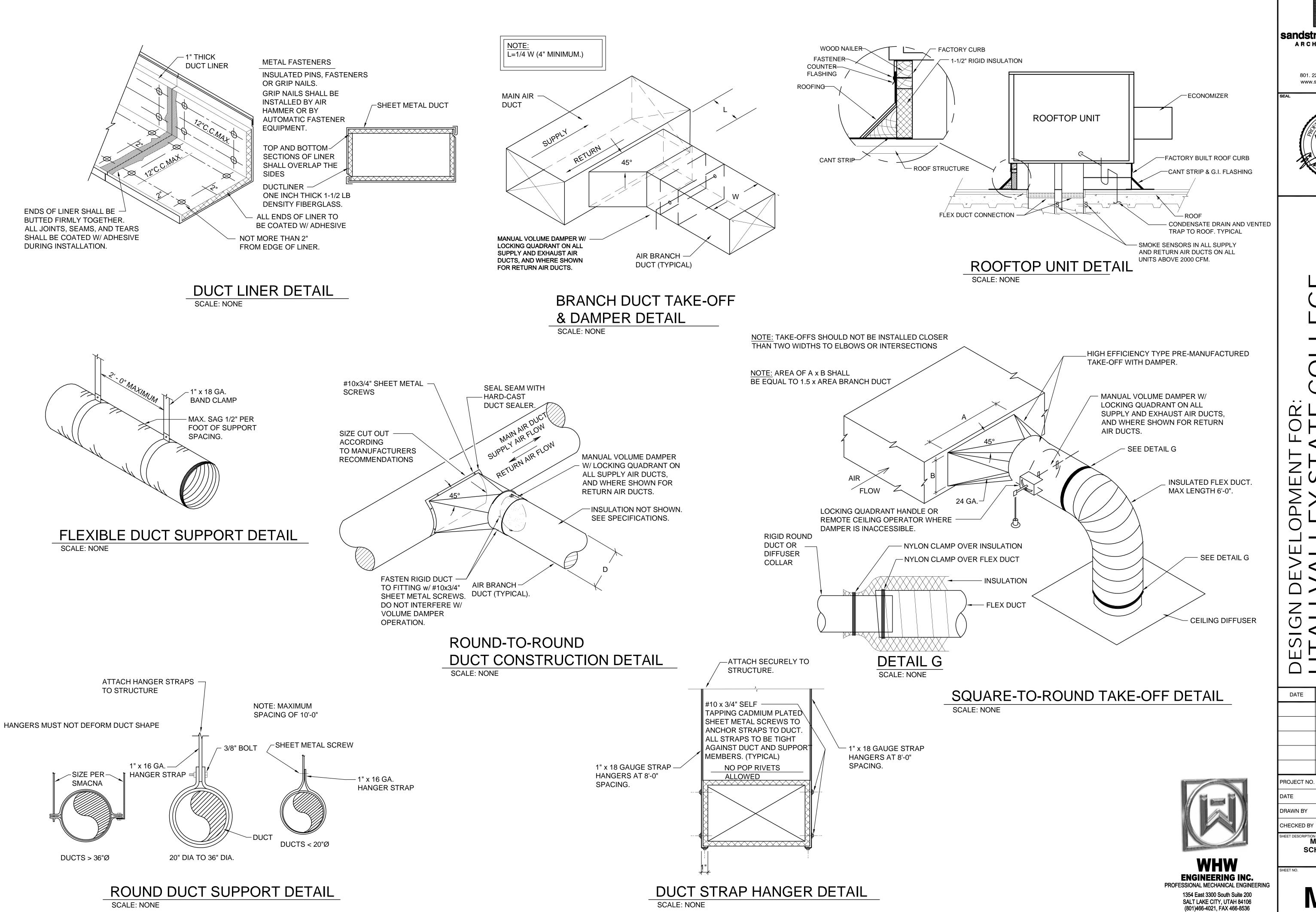
REVISION

AUG 30,07 CHECKED BY

MECHANICAL ROOF PLAN

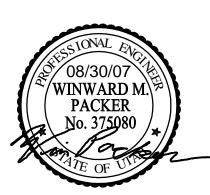
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PROJECT NO. AUG 30,07

STAFF

MECHANICAL **SCHEDULES AND DETAILS**

M5.1

EMAIL: excellence@whw-engineering.com

ROOFTOP AIR CONDITIONER SCHEDULE (GAS HEAT)

				_															
	MANUFACTURER &			E.S.P. IN	HEATING		COOLING				ELECTI	RICAL				EER/	OPER.		SCHEDULE
SYMBOL	MODEL NUMBER	SA CFM	OSA CFM	W.G.	TOT. MIN. INPUT MBH	AMB. AIR (DB)	AMB. AIR (WB)	MIN. TOTAL MBH	V - Ø - Hz	COMPRESSOR #	COMPRESSOR TOTAL RLA	COMPRESSOR TOTAL LRA	POWER EXHAUST HP	MCA	МОСР	SEER	WT. (LBS)	COMMENTS	NOTES
RT 1	CARRIER 48HJ024	7850	1570	.6	400	96	64	231	208-3-60	3	22.4 22.4 22.4	184 184 184	5	111	125	10.8 EER	2900		1,2,3,4,5,6,7
RT 2	CARRIER 48HJ004	1200	300	.6	115	96	64	35	208-3-60	1	10.3	77	-	24.5	30	13 SEER	700		1,2,3,4,5
RT 3	CARRIER 48HJ004	1115	280	.6	72	96	64	34	208-3-60	1	10.3	77	-	24.5	30	13 SEER	700		1,2,3,4,5

- 1. E.S.P. DOES NOT INCLUDE LOSSES THROUGH ACCESSORIES.
- 2. RATED MINIMUM INPUT AT SEA LEVEL.
- 3. PROVIDE ONE 15 AMP, 120 VOLT, DUPLEX GFCI SERVICE OUTLET.
- 4. BELT DRIVE UNIT
- 5. TWO STAGE GAS HEAT.
- 6. PROVIDE CENTRIFUGAL POWER EXHAUST.
- 7. PROVIDE WITH INTEGRAL DUCT SMOKE DETECTORS IN SUPPLY AND RETURN.

F	REGIST	ER, LO	UVER	& GRIL	LE SCH	HEDUL	E
SYMBOL	TYPE	SERVICE	MAX CFM	NOMINAL SIZE	THROAT SIZE	CEILING TYPE	SCHEDULE NOTES
EG-1	CEILING	EXHAUST	750	18/18	18/18	HARD	1,2,3,4
EG-2	CEILING	EXHAUST	50	6/6	6/6	HARD	1,2,3,4
EG-3	DUCT	EXHAUST	160	8/8	8/8	N/A	1,2,3,4
TG-1	SIDEWALL	TRANSFER	375	16/10	16/10	N/A	1,2,3,5
TG-2	CEILING	TRANSFER	375	12/12	12/12	HARD	1,2,3,4
TG-3	CEILING	TRANSFER	375	12/12	12/12	LAY-IN	1,2,3,4
R-1	CEILING	RETURN	375	12/12	12/12	HARD	1,2,3,4
R-2	CEILING	RETURN	375	12/12	12/12	LAY-IN	1,2,3,4
R-3	CEILING	RETURN	600	16/16	16/16	LAY-IN	1,2,3,4

REGISTER. LOUVER AND DIFFUSER SCHEDULE NOTES:

- 1. MAXIMUM NC = 25 @ MAXIMUM CFM NOTED.
- 2. SHALL BE PRICE 535 OR EQUAL BY OTHER APPROVED MANUFACTURERS.
- 3. SEE SPECIFICATIONS FOR APPROVED MANUFACTURERS.
- 4. FINISH SHALL BE OFF-WHITE BAKED ENAMEL.
- 5. FINISH TO BE SPECIFIED BY ARCH

)IFFUS	ER SCH	HEDULI	E		
SYMBOL	TYPE	MAX CFM	FACE SIZE	NCK SIZE	CEILING TYPE	BLOW	PATTERN	SC
D-1 CFM	CEILING	300	9X9	8"Ø	HARD	4-WAY	4 N	1
D-2							<u>&</u>	

SYMBOL	TYPE	MAX CFM	FACE SIZE	NCK SIZE	CEILING TYPE	BLOW	PATTERN	SCHEDULE NOTES
D-1 CFM	CEILING	300	9X9	8"Ø	HARD	4-WAY	4	1,2,3,4,6
D-2 CFM	CEILING	500	12X12	10"Ø	HARD	4-WAY	4	1,2,3,4,6
D-3 CFM	CEILING	300	9X9	8"Ø	LAY-IN	4-WAY	⊘	1,2,3,4,6
D-4 CFM	CEILING	500	12X12	10"Ø	LAY-IN	4-WAY		1,2,3,4,6
D-5 CFM	CEILING	750	15X15	14"Ø	LAY-IN	4-WAY	⊘	1,2,3,4,6
D-6 CFM	DUCT MOUNTED	980	22x12	22x12	N/A	3-WAY	4 <u></u>	2,5,7

- 1. PROVIDE LAY-IN CEILING AND BORDER / MODULE AS REQUIRED. SEE ARCHITECTURAL CEILING PLANS.
- 2. MAXIMUM NC 25 AT CFM LISTED.
- 3. PROVIDE TRANSITION TO DIFFUSER NECK SIZE AS REQUIRED TO DUCT WORK SHOWN ON PLAN.
- 4. DIFFUSER SHALL BE PRICE MODEL SMD OR EQUAL BY APPROVED MANUFACTURER IN SPECIFICATIONS
- 5. DIFFUSER SHALL BE PRICE MODEL ARDR OR EQUAL BY APPROVED MANUFACTURER IN SPECIFICATIONS
- 6. FINISH SHALL BE OFF WHITE BAKED ENAMEL.
- 7. FINISH SHALL BE ANNODIZED ALUMINUM.

FXHAUS [*]	T FAN SCH	FDUI F
EXHAUS	I FAN SCHI	EDUL

					7114 00						
SYMBOL	MANUFACTURER & MODEL No.	SERVES	C.F.M.	STATIC PRESSURE	MAX NOISE SONES	MOTOR			OPER. WT.	INTERLOCK WITH	SCHEDULE NOTES
WIODEL NO.				IN. WG.	SONES	V - Ø - Hz	HP	FAN RPM	(LDO)	VVIIII	NOTES
EF 1	GREENHECK ROOF MOUNTED GB 161	RESTROOMS	1735	.25	7.9	120-1-60	1/4 771		90	BUILDING AUTOMATION SYSTEM	1
EF 2	GREENHECK SP-A510	KITCHEN	450	.2	5.5	120-1-60	224 W	1070	31	SWITCH	2

1. PROVIDE WITH ROOF CURB, BACK DRAFT DAMPER, AND AUTOMATIC SPRING MOUNTED BELT TENSIONER.

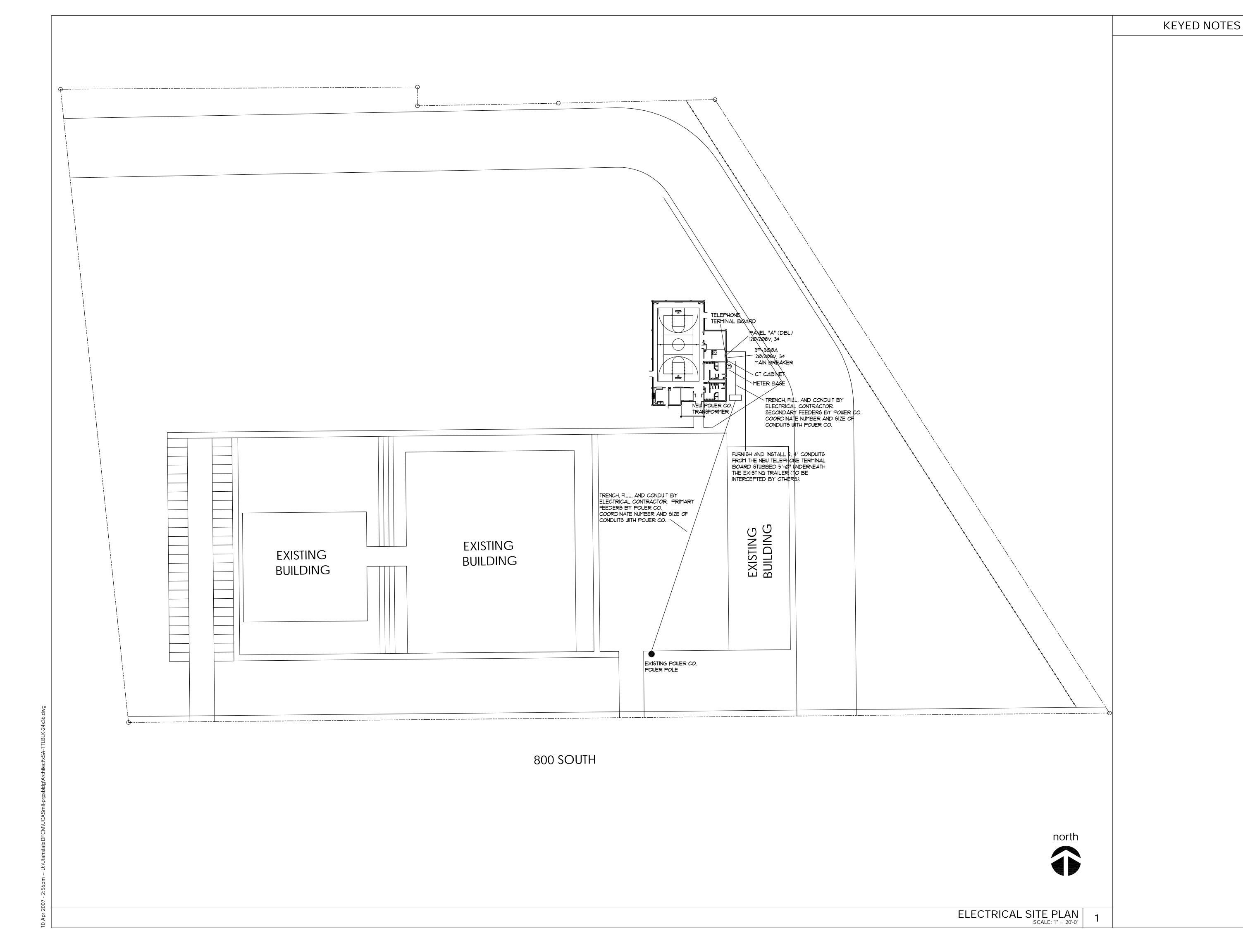
2. PROVIDE WITH ROOF CAP.



REVISION

CHECKED BY MECHANICAL **SCHEDULES AND**

DETAILS



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DESIGN DEVELOPMENT FOR: UTAH VALLEY STATE COLLEGE UCAS MULTI-PURPOSE BUILDING

DATE REVISION

NOV 17, 06 COST ESTIMATE SET

PROJECT NO. SA-0627

DATE JUNE 27, 2007

DRAWN BY DYT

CHECKED BY TAH

SHEET DESCRIPTION

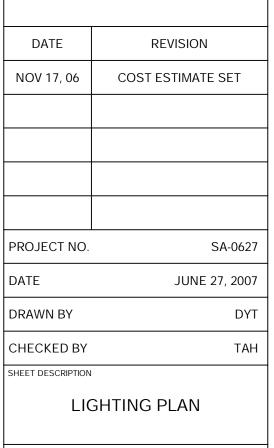
ELECTRICAL SITE

PLAN

E1.1



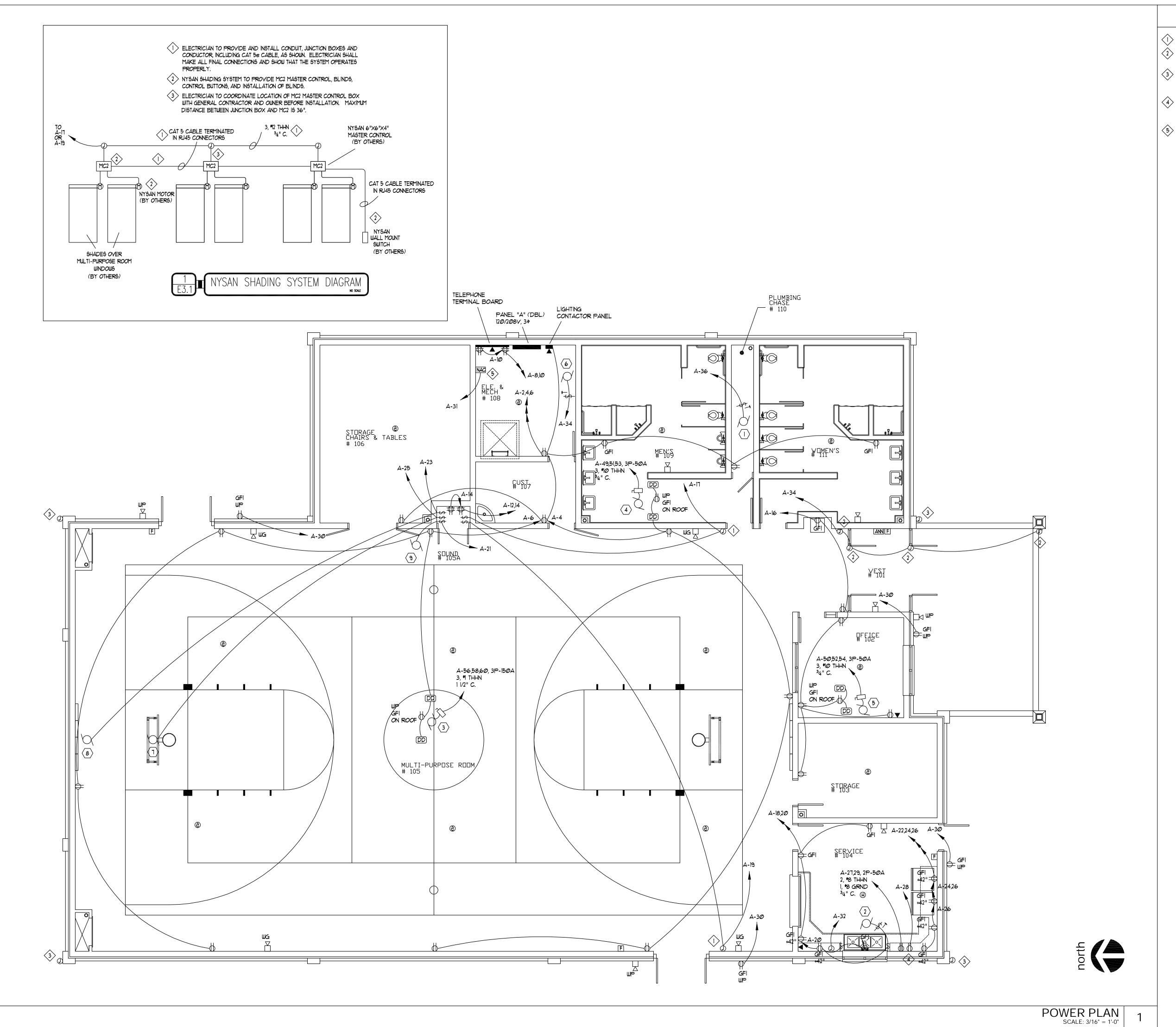
DESIGN DEVELOPMENT FOR: UTAH VALLEY STATE COLLEGE UCAS MULTI-PURPOSE BUILDING DFCM PROJECT No. 06304790 / CONTRACT No. 077170 940 WEST 800 SOUTH, OREM UTAH 84058



E2.1

LIGHTING PLAN SCALE: 3/16" = 1'-0"

LIGHTING CONTACTOR PANEL TELEPHONE TERMINAL BOARD PANEL "A" (DBL) 120/208V, 3¢ N ELE. & MECH # 108 STORAGE CHAIRS & TABLES # 106 \bigoplus \bigcirc A-5,T (G) \triangle \bigcirc \bigcirc \$a\$b\$c\$d\$e \bigcirc #FIJCE \bigcirc N MULTI-PURPOSE ROOM # 105 A STORAGE # 103 C E M \triangle \Diamond A \triangle \triangle \mathbb{E} N \bigcirc \bigcirc



KEYED NOTES

- 5 SEE DETAIL 1/E3.1 FOR SHADING SYSTEM CONNECTIONS.
- 2 NEW AUTO-DOORS AND ACTUATORS, COORDINATE WITH MANUFACTURER.
- WALL MOUNTED JUNCTION BOX FOR SECURITY SYSTEM.
 COORDINATE LOCATION WITH VIDEO CONTRACTOR
 STUB CONDUIT INTO AN ACCESSIBLE AREA.
- MICROWAVE OUTLET BOX TOP TO BE EVEN WITH BOTTOM OF WALL CABINET (5'-11" TO TOP) MOUNT SINGLE P-RING SIDEWAYS.
- EXISTING FIRE ALARM PANEL LOCATED IN ADJACENT BUILDING AND WILL FEED THROUGH THE FAP NAC AT THIS LOCATION.

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SEAL

DESIGN DEVELOPMENT FOR:

UTAH VALLEY STATE COLLEGE

UCAS MULTI-PURPOSE BUILDING

DATE REVISION

NOV 17, 06 COST ESTIMATE SET

PROJECT NO. SA-0627

DATE JUNE 27, 2007

DRAWN BY DYT

CHECKED BY TAH

SHEET DESCRIPTION

POWER PLAN

-3.1

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ARCHITECTURE, P.C.

DATE	REVISION
OV 17, 06	COST ESTIMATE SET
DJECT NO.	SA-0627
E	JUNE 27, 2007
AWN BY	DYT

DFCM P 940 WE

CHECKED BY

SHEET DESCRIPTION POWER RISER DIAGRAM AND SCHEDULES

	PA	NEL	Д			LOCA	ATIONE	LEC/MEC	H #1Ø8	AIC _	10;	000				
	TY	PE1	NQOD		_	120/20	8YOL	rs _	3	PHASE			4	_ WIRE	.	
		3	_ POL	.E		400	_ AMP	MAIN _	LUGS		SURF	ACE		OUNTED		
CIR.	BRE	AKER		EQUIF	·	LOAD	Lo	OADS/PHA	6E	LOAD		EQUIF	٥.	BRE	AKER	CIF
NO.	POLE	AMP5		СО	MIS	WATTS	ØI	Ø 2	Ø 3	WATTS	LTS	СО	MIS	POLE	AMP6	NC
1	1	20	20	-	1	1340	2340			1000		6		1	20	2
3	1	20	23			1570		2570		1000		5		1	20	4
5	1	2Ø	5			1100			2100	1000		5		1	20	e
٦	1	2Ø	5			1100	2100			1000		2		1	20	8
9	1	2Ø	5			1100		2100		1000		2		1	20	16
11	1	2Ø	5			1100			2100	1000		2		1	20	12
13	1	2Ø	5			1100	2100			1000		2		1	20	1.
15	1	2Ø	8			1570		257Ø		1000		7		1	20	16
17	1	2Ø	SHA	DE S	3YS.	1600			2600	1000		3		1	20	1
19	1	2Ø	SHZ	DE S	SYS.	1600	2600			1000		2	$\langle 2 \rangle$	1	20	2
21	1	2Ø	MOTO	R CU	IRTAIN	1180		218Ø		1000		1		1	20	2
23	1	2Ø	MOTO	PR 60	REEN	1180			218Ø	1000		1		1	20	2
25	1	2Ø	MOTO	OR 5	INRD.	1180	218Ø			1000		2		1	20	2
27	2	50	i	RANG	E	2500		3500		1000	MIC	ROWA	YΕ	1	20	2
29						2500			3500	1000		4		1	20	3
31	1	2Ø	F.	4P N/	4C	200	1600			1400	DIS	-IWASI	I ER	1	2Ø	3
33	1	2Ø				SPARE		53Ø		53Ø			6	1	20	3
35	1	2Ø				SPARE			100	700			$\langle 1 \rangle$	1	20	3
31	1	2Ø				SPARE				SPARE				1	20	3
39	1	2Ø				SPARE				SPARE				1	20	4
41	1	2Ø				SPARE				SPARE				1	2Ø	4
43	1					SPACE				SPACE				1	1	4
45	1					SPACE				SPACE				1		4
47	1					SPACE				SPACE				1		4
49	1	2Ø			4	2940	5880			294Ø			(5)	1	20	5
51	1	2Ø				2940		5880		2940				1	20	5
53	1	2Ø				2940			5880	2940				1	20	5
55	1					SPACE	11880			11880			(3)	1	20	5
E 7	1 1	1	1	l	1	SPACE		11880		11880			1	1 1	20	5
57 59	-				 	SPACE			11880	11880					20	6

TOTAL LOADS 92,830 WATTS

WIRE ____4, #500KCM THHN CONDUIT _______31/2" C.

30680 31210 30940

	INEWSTAR	193-444-183-18 IAI -128-21D-11 IB	DANIE AD (A) EXCEPT WITH ELIERGENCT	0, 102 10	
B	WILLIAMS	14-4-832-FAI2187-PIANO HINGE-EB4/4-120/EM5/1	BALLAST, 1100 LUMEN OUTPUT.		
	PRUDENTIAL	P-3644-04-818-PRAJ81-CM-DW-TMW-120-EL PIANO SPRING LIST LENS			
	DAYBRITE	2DPG332-F621-12Ø-1/3IEB	FLUORESCENT 2' X 4' TROFFER WITH .125 LENS AND	3, F32 T8	
©	WILLIAMS	5@G-624-332-6Al2l25-EB2/1-12@	IN/OUTBOARD WIRING.		
	LITHONIA	26P8 G 3 32 A12125 120 GEB			
	DAYBRITE	2DPG332-F521-12Ø-1/3IEB-E5	SAME AS C EXCEPT WITH EMERGENCY	3, F32 T8	
D	WILLIAMS	50G-624-332-6A 2 25-EB2/1- 20/EM5-	BALLAST, 1100 LUMEN OUTPUT.		
	LITHONIA	25P8 G 3 32 A12125 120 GEB P51400			
	MCPHILBEN	55L-1-12/27-W-G	UNIVERSAL MOUNTED LED EXIT LIGHT WITH ONE FACE	FURNISHED	
(E)	EXITRONIX	G400U WB WW			
	LITHONIA	LE S W I G 120/277		ı	
	DAYBRITE	2DPG232-F921-12Ø-1/2EB	2' X 4' FLUORESCENT LAY-IN FIXTURE.	2, F32 T8	
F	WILLIAMS	5@G-524-232-5A12125-E82-12@			
	LITHONIA	25P8 G 2 32 Al2125 12Ø GEB			
	DAYBRITE	2DPG232-F621-12Ø-1/2EB-E5	SAME AS (F) EXCEPT WITH EMERGENCY	2, F32 T8	
G	WILLIAMS	5@G-524-232-5A12125-E82-12@/EM5-1	BALLAST, 1100 LUMEN OUTPUT.		
	LITHONIA	25P8 G 2 32 Al2125 120 GEB P51400			
	DAYBRITE	15M232-F521-12-=1/2EB	1' × 4' FLUORESCENT SURFACE MOUNTED FIXTURE.	2, F32 T8	
\oplus	WILLIAMS	II-4-232-\$A12125-EB2-12Ø			
	LITHONIA	M 2 32 Al2l25 I2Ø GEB			
	DAYBRITE	ISM232-F621-12-=1/2EB-E5	SAME AS (H) EXCEPT WITH EMERGENCY	2, F32 T8	
\bigcirc	WILLIAMS	II-4-232-6AI2I25-EB2-I2Ø/EM5-I	BALLAST, 1100 LUMEN OUTPUT.		
	LITHONIA	M 2 32 Al2125 120 GEB PS1400			
	DAYBRITE	CD232W-12Ø-1/2EB	4' FLUORESCENT WALL MOUNTED FIXTURE,	2, F32 T8	
\bigcirc	WILLIAMS	29-4-232-A-CT-EB2-12Ø	MOUNTED 6'-10" AFF TO TOP OF FIXTURE.		
	PRUDENTIAL	P-1850-2T8-04'-PRA-YGW-SC-120			
	CAPRI	CF62HI8QY1-T447L	RECESSED COMPACT FLUORESCENT DOWNLIGHT	2, 18W DTT	
K	DMF LIGHTING	DHFH6/D6ITIW	WITH ROUND LENS SUITABLE FOR WET LOCATIONS.		
	LITHONIA	LGF 2/18DTT TRW TT3 120			
	DAYBRITE	T232-12Ø-1/2EB-CG4	4' LONG STRIP LIGHT WITH WIRE GUARD.	2, F32 T8	
	WILLIAMS	15-4-232-WGil-EBI-I2Ø			
	LITHONIA	C 2 32 120 GEB WGCUN			
	GARDCO	IØIEMC-MT-42TRF-XX-CBA	TRAPAZOID EMERGENCY EGRESS FIXTURE WITH	1, CF42	
\bigcirc	LSI	GBWS WW 42CFL F VE CBA BBCW	EMERGENCY LOW TEMP BALLAST. MOUNT 9'-0"		
			AFF FROM BOTTOM OF FIXTURE.		
	GARDCO	141-WT-25ØMH-XX-CBA	METAL HALIDE TRAPAZOID WALL PACK WITH PULSE	1, 25ØMH PS	
N	LSI	GBWM3 25@P6MH F12@	START LAMP.		
	NULITE	EJL 25ØMH CBA MVOLT			
0					
	1		1		

(A) WILLIAMS 14-4-832-FAI218T-PIANO HINGE-EB4/4-120 W/TWO BALLASTS (SPRING LOADED LATCHES AND

PRUDENTIAL P-3644-04-818-PRAI81-CM-DW-1MW-120 PIANO SPRING LI81 LENS PIANO HINGES REQUIRED) AND HIGH IMPACT LENS.

DESCRIPTION

SAME AS (A) EXCEPT WITH EMERGENCY

4' X 4' FLUORESCENT SURFACE MOUNTED FIXTURE 8, F32 T8

LAMP

8, F32 T8

FIXTURE SCHEDULE

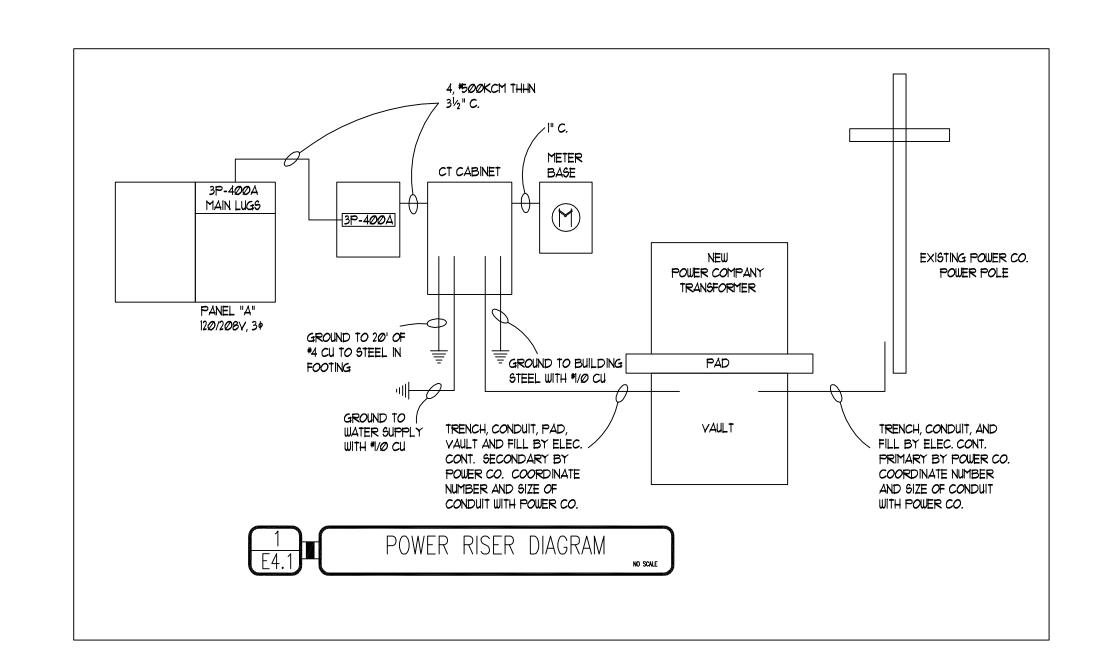
NEWSTAR 53-444-18G-.18TAP-120-2EB

NEWSTAR 53-444-18G-.18TAP-120-2EB-EMB

SYMBOL MANFR. CATALOG NO.

FIXTURE TYPES REPRESENTED BY <u>JRC</u>, <u>LIGHT SOURCE</u>, AND <u>STEVENS SALES</u> ARE ALSO ACCEPTABLE. FULL RANGE OF COLORS FOR FIXTURES TO BE MADE AVAILABLE TO ARCHITECTS.

MECHANICAL EQUIPMENT SCHEDULE											
ELEC.	MECH.	EQUIPMENT	CIRCUIT	VOLTS		HP	מא שמבו	STARTER			DEMARK
SYMB	SYMB		NO.	YOLIS	PHASE	WATTS	BREAK.	FURN.	INSTALL	SIZE	REMARKS
1	EF-1	EXHAUST FAN	Δ-36	12Ø	1	4 HP	IP-20A	М	М		SEPARATE SWITCH THERMAL SWITCH
2	EF-2	EXHAUST FAN	A-2Ø	12Ø	1	224 W	IP-20A	М	М		CONTROLS BY OTHERS
3	RTU-I	ROOF TOP UNIT	A-56,58,60	208	3	99 A	3P-15ØA	М	М		100A FUSED DISCONNECT
4	RTU-2	ROOF TOP UNIT	A-49,51,53	2Ø8	3	24.5 A	3P-50A	М	M		30A FUSED DISCONNECT
5	RTU-3	ROOF TOP UNIT	A-50,52,54	208	3	24.5 A	3P-50A	М	М		30A FUSED DISCONNECT
6	CP-I	CIRCULATION PUMP	Δ-34	12Ø	1	1/6 HP	IP-20A	М	M		THERMAL SWITCH
7		MOTORIZED BACKBOARD	A-25	120	1	1/2 HP	IP-20A				SEPARATE SWITCH
8		MOTORIZED SCREEN	A-23	12Ø	1	1/2 HP	IP-20A				SEPARATE SWITCH
(9)		MOTORIZED CURTAIN	A-21	12Ø	1	½ HP	IP-20A				SEPARATE SWITCH
$\langle \mathbf{p} \rangle$											



SYMBOL LIST	
SYMBOL	DESCRIPTION
	RECESSED CEILING FIXTURE
0	FLUORESCENT FIXTURE
	FLUORESCENT FIXTURE WITH EMERGENCY BATTERY PACK
	WALL-PACK FIXTURE
\otimes	EXIT LIGHT
A	FIXTURE REFERENCE
	MECHANICAL SYMBOL
\$	SINGLE POLE SWITCH
\$ ^a	SWITCH FOR FIXTURES DESIGNATED WITH "a"
\$3	THREE-WAY SWITCH
\$ [†]	THERMAL OVERLOAD SWITCH
-	DUPLEX CONVENIENCE OUTLET
⊕ G FI	DUPLEX OUTLET WITH GROUND FAULT INTERRUPTER
⊕ WP	DUPLEX OUTLET WITH A WEATHERPROOF COVER
€	POWER OUTLET, SINGLE PHASE, THREE WIRE
 	FOURPLEX OUTLET
▼	DATA/COM OUTLET
□-j	FUSED DISCONNECT SWITCH
\mathcal{O}	MOTOR
①	JUNCTION BOX
A-13,5	HOME RUN, 3 CIRCUITS, 4 WIRE, 3/4"C.
DD	DUCT DETECTOR
NAC	FIRE ALARM NAC UNIT
[MA]	FIRE ALARM ANNUNCIATOR
F	MANUAL FIRE STATION
	FIRE ALARM HORN STROBE-WEATHERPROOF
	FIRE ALARM HORN STROBE WITH WIRE GUARD
	FIRE ALARM HORN STROBE
(1)	HEAT DETECTOR
©	SMOKE DETECTOR